

AI-Powered Search Engine for WPI

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1 Introduction

1.1 Personal Motivation

Challenges faced as an international student at WPI: As an international student at Worcester Polytechnic Institute (WPI), I encountered various challenges in adapting to campus life. Navigating a new environment, understanding university policies, and finding relevant resources proved to be daunting tasks. The lack of a strong support network and the hesitation to ask seemingly trivial questions further compounded these difficulties.

Lack of connections and difficulties navigating campus life: Being far from home and immersed in a new culture, international students often struggle to form meaningful connections within the university community. This isolation can hinder their ability to seek guidance and support when needed. Moreover, the intricacies of campus life, such as locating specific facilities, understanding academic requirements, and accessing student services, can be overwhelming without proper assistance.

1.2 Addressing Student Needs with AI

Recognizing the need for a supportive and inclusive solution, I envisioned an AI-powered campus guide that could provide students with a readily accessible and non-judgmental resource for their inquiries. By leveraging the capabilities of language models, this project aimed to create a platform where students could ask questions without fear of judgment or embarrassment, empowering them to seek the information they need to thrive in their academic journey.

The AI-powered campus guide was designed to bridge the gap between students and the wealth of information available at WPI. The system would assist students, especially international ones like myself, in navigating various aspects of campus life. From academic resources and extracurricular activities to mental health support and cultural adjustment, the AI guide would serve as a comprehensive and reliable source of information, facilitating a smoother transition and integration into the university community.

2 GOMP.AI - AI Voice Assistant for WPI

2.1 Introduction

The initial phase of the project focused on developing a voice assistant named GOMP.AI in honor of the school's mascot Gompei, which would serve as a campus guide for WPI students. The primary objective was to create an AI-powered system that could answer questions and provide relevant information to students through natural language interactions.

2.2 Question Answering based on FAQ

2.2.1 Development

To begin the development process, I set up the necessary code infrastructure to integrate with the OpenAI API, which mainly involved implementing the necessary functions to send requests and receive generated responses from their LLMs. The model of choice for this was GPT-3[1].

Extracting questions and answers from WPI's FAQ page: To populate the knowledge base, I focused on extracting questions and answers from WPI's frequently asked questions (FAQ) page. I developed a web scraping script that retrieved the data information from the FAQ page, parsing the questions and their corresponding answers into a structured format.

Connecting the knowledge base to the LLM: for the LLM to utilize the collected FAQs and their answers, while generating a response, I designed my prompt to include around 1200 total tokens of questions and answers in the FAQ at the start of the prompt. For the prototype, I had to only use a limited amount of data points due to GPT-3's small context window, leaving just enough for user input and model response.

Implementing guardrails for hallucination: While the model was able to answer questions that already had direct answers relatively accurately, it was prone to answer any question, regardless of knowing the actual answer, which was an important issue to address for something that would be used as a guide. To combat this, I designed a system of rules to disclose to the model, which were intended to reduce hallucination by encouraging the model to not respond to anything it is not completely sure about. The actual prompt needed to be changed a few times before achieving consistent results:

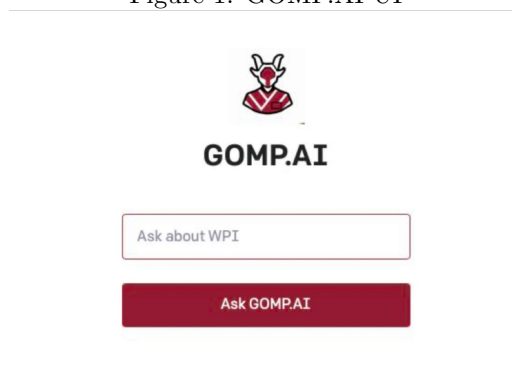
You are a question-answering AI for Students at Worcester Polytechnic Institute(WPI)

Notes:

- Please provide a concise and accurate answer based on the information in the knowledge base.
- Please specify what the information is relevant to, if it is not clear from the question.
- Please do not include any information that is not in the knowledge base.
- Please do not include any information that is not relevant to the question.
- Please do not include any information that is not accurate.

Creating a UI for user interaction with the assistant, I designed and implemented UI that allowed a user to input their questions and receive generated responses. It was very minimal, and is pictured in 1.

Figure 1: GOMP.AI UI



2.2.2 Results

It successfully served as a proof of concept for a system with the ability to answer natural language student questions, given a knowledge base.

2.2.3 Limitations

It was constrained by multiple factors from reaching a level of quality that would make it useful:

- **Inefficient use of GPT-3's Small Context Window Size:** the LLM could only handle 2049 tokens, which equates to around 1536 words, and each question is around 150 tokens in length on average. This severely

limited the utility of the prototype, as it could not fit all of the FAQ data, and limited the length limit for the user’s question and model’s response, while also not being scalable in the case that more information gets added to the knowledge base.

- **Lack of instruction-tuning in GPT-3:** The model was not specifically optimized for question-answering tasks, which resulted in inconsistencies and inaccuracies in the generated responses. The absence of explicit instruction-following capabilities required additional prompt engineering efforts to guide the model towards desired outputs.
- **Hallucination:** despite careful crafting of prompts and the inclusion of specific instructions to guide the model towards generating accurate and relevant responses, the model was still not completely effective at following them.
- **Lacking Knowledge Base:** simply relying on FAQs and their answers is not enough information for neither a human or LLM to be competent in handling student questions about a university on the required level. This also requires manually writing questions and answers for the model if we want to add more data, which is extremely inefficient.

2.3 Deciding Next Steps

Fine-Tuning: In an effort to improve the performance assistant, I considered the possibility of fine-tuning GPT-3 or an Open-Source LLM. Since there weren’t nearly enough data points in the FAQ, one idea I explored was generating a dataset of questions and answers synthetically by asking an LLM to generate them based on the contents of WPI web pages.

However, upon further research and experimentation, I came to the conclusion that embedding knowledge into the model through fine-tuning was not an effective approach, as each data point would be one billions of examples that the model has already conditioned its weights on during training, which would make it prone to hallucination.

The main approach that solves these issues ended up being Retrieval Augmented Generation, which was my next direction in this project.

3 Transition to AI-Powered Search Engine

3.1 RAG (Retrieval Augmented Generation)[2]

RAG is a technique that involves retrieving relevant documents based on the user’s query and using those documents as context for the language model to generate accurate and informative responses. It can be thought of as a librarian assisting a student with a research question. The student (user) asks a question, and the librarian (RAG system) searches through the library’s catalog (knowledge base) to find the most relevant books and articles (documents) related to

the question. The librarian then reads the relevant passages from these sources and uses the information to provide a comprehensive and accurate answer to the student’s question, much like how the language model generates a response based on the retrieved documents.

Now, RAG is one of the most widely utilized techniques when it comes to applied use cases of LLMs, however this was not the case at the time of development. I arrived at the idea when researching and experimenting with ways I could incorporate the vast amount of unstructured data that is readily available from WPI’s web pages, while doing so efficiently with respect to the small context window size and the model’s tendency to get confused when overflowed with unrelated pieces of text.

3.2 Development

3.2.1 Building the Knowledge Base

To build a comprehensive knowledge base for the RAG system, I developed large-scale web-scraping pipeline, targeting WPI’s official website. As a result, I collected 17,000 web pages, extracting relevant textual content, links, and other metadata, such as the categories the web pages are related to. The scraped data underwent pre-processing, including text cleaning, formatting, and structuring, to ensure its suitability and integration into the RAG pipeline.

3.2.2 Vectorizing the Knowledge Base

For efficient and accurate retrieval of most relevant documents to user queries, I embedded the collected corpus with OpenAI’s ADA-002 text embedding model, convert the pre-processed text from the scraped web pages into dense vector representations, capturing the semantic meaning of the content. Initially, I embedded just the main content of the pages. Later, through experimentation and research, I arrived at formatting the embedded text as follows:

Title: webpage title

Content: webpage content

This enhanced the captured meaning for retrieval by providing better context to the embedded content.

3.2.3 Retrieval Algorithm

For retrieval, I implemented cosine similarity-based search, which involves comparing the user query’s embedding to that of each embedded document in our knowledge base, which allows us to rank them from most relevant to least with respect to the query. The top-k most similar documents were retrieved and used as context for the language model to generate a response. This approach allowed for more efficient, targeted and relevant information retrieval compared to the the FAQ prototype.

3.2.4 Hallucination Guardrails

To further improve the quality and accuracy of the generated responses, I incorporated a slightly different set of rules that I used with the FAQ prototype, also adding the current date, which was helpful for the model to decide which retrieved documents to give information from if contents are on similar topics from different dates.

3.2.5 Results

The implementation of the RAG system yielded significant improvements in the observed factual accuracy and usefulness of the generated responses compared to the FAQ-based prototype. By leveraging the vast amount of information available on WPI's websites, the RAG system could provide answers to a much broader range of questions, extending beyond the limited scope of the FAQ. The retrieval of relevant documents based on the user's query enabled the model to generate responses that were more comprehensive, accurate, and tailored to the specific information needs of the students.

3.3 AI-powered Search Engine

An AI-powered search engine is an information retrieval system that leverages artificial intelligence techniques to enhance the search experience and deliver more accurate and relevant results to users. Unlike traditional keyword-based search engines, AI-powered search engines employ advanced machine learning models, and natural language processing techniques to understand the intent behind user queries and provide intelligent and contextualized responses. I wanted to take that idea further, by introducing a question-answering or even conversational component.

3.4 Motivation

Embedding-based Search Quality: During the development and testing phase, I conducted manual qualitative assessments to evaluate the performance of the RAG system against WPI's existing search engine. Although no formal metrics were employed, the results demonstrated the superiority of the embedding-based retrieval approach in many cases. The embedding-based similarity matching proved to be highly effective in identifying the most pertinent information, even for complex and nuanced queries. This realization sparked the idea of transitioning the project from a voice assistant to a full-fledged AI-powered search engine that could revolutionize the way students access information on campus. The added conversational component would leverage the power of LLMs and RAG to generate informative responses to user queries based on top search results, further enhancing the search experience and reducing the need for users to manually sift through multiple web pages to find the desired information.

3.5 Development

With the RAG pipeline completed, the foundation for the search engine was established, so the development following that focused on integrating new models and creating a UI.

3.5.1 Model iteration - Integrating ChatGPT[3] and GPT-4

As the project progressed, I had the opportunity to integrate new models that were released during the development, namely GPT-3.5 (ChatGPT) and later GPT-4, into the AI-powered search engine.

Longer context length and better instruction following: One of the key advantages of integrating GPT-3.5 and GPT-4 was their increased context length compared to the previous GPT-3 model. The longer context window allowed for the processing of more extensive passages from the retrieved documents, more passages in general, enabling the generation of more comprehensive and contextually relevant responses. Additionally, these models were fine-tuned for instruction-following, which made them optimal for conversational use and improved their ability to follow the guardrails I set, reducing risk of hallucinations.

The transition from GPT-3 to GPT-3.5 and GPT-4 resulted in a noticeable enhancement in the quality, observed factual accuracy and coherence of the generated responses, making the search engine more reliable and effective in addressing user queries.

Unfortunately, the specific GPT-3 version I was using at the time of initial development in 2020 was deprecated, so the examples I will present later are only from GPT-4, as I no longer have access to the original model.

3.5.2 Search Engine UI

Due to being constrained in time and web development experience, the UI for this was mainly static mock-ups that included real data from our RAG pipeline and embedding search, to present during user preference testing.

3.6 Results

3.6.1 User Preference Testing Design

Since the initial comparison between WPI's search engine and our embedding-based engine during the development, WPI has seemingly upgraded their search engine. As a result, for the A/B user testing, I put more emphasis on evaluating user preferences and trust in the AI-generated answers provided by our search engine, with the embedding-based ranking being second in importance. The testing aimed to determine whether users preferred having an answer, even if it might be incorrect, compared to the current WPI search engine. Additionally, the testing sought to compare the ranking of search results between our embedding-based approach and WPI's upgraded search engine.

However, due to not getting IRB approval in time, I was not able to conduct the user preference testing.

In Appendix A, you may observe pairs images showcasing what the user would observe for a given query with the AI Search Engine vs. the WPI Search engine. These were intended to be used in the user preference testing.

3.7 Conclusion

The development of this project, evolving from a campus guide to a comprehensive AI-enhanced search engine, highlights the potential of AI to significantly enhance information accessibility and improve the student experience. The integration of AI has not only optimized the search process but also bridged the gap between technology and user needs. By focusing on human-centric design and continuously adapting to technological advancements, this project demonstrates a model for using AI to positively impact society, in this case in educational environments. It highlights the importance of tailoring technology to address specific community challenges, thereby fostering a more inclusive and supportive campus atmosphere.

3.8 Future Work

- **User Preference Testing:** Conducting comprehensive user preference testing is crucial to validate the effectiveness and usability of the AI-powered search engine. Gathering feedback from a diverse group of students will provide valuable insights into the strengths and weaknesses of the system, guiding further refinements and enhancements.
- **Integration with WPI's Official Website:** Collaborating with WPI's administration and IT department to integrate the engine into the official university website would greatly increase its accessibility and impact. This integration would ensure that all students have easy access to the tool and can benefit from its capabilities.
- **Expansion of Knowledge Base:** Continuously expanding and updating the knowledge base is essential to maintain the relevance and accuracy of the search engine. Collaborating with various departments and student organizations to incorporate additional resources, such as course materials, event information, and student support services, would further enhance the system's utility.
- **Multilingual Support:** Considering the diverse student population at WPI, implementing multilingual support within the search engine would ensure that international students can access information in their preferred language. This feature would promote inclusivity and reduce language barriers in accessing critical resources.
- **Personalization and User Profiles:** Developing personalized user profiles that adapt to individual students' interests, academic programs, and

preferences would enable the search engine to provide more targeted and relevant results. This personalization could be achieved through machine learning techniques that analyze user interactions and feedback.

References

- [1] Tom B. Brown, Benjamin Mann, Nick Ryder, Melanie Subbiah, Jared Kaplan, Prafulla Dhariwal, Arvind Neelakantan, Pranav Shyam, Girish Sastry, Amanda Askell, Sandhini Agarwal, Ariel Herbert-Voss, Gretchen Krueger, Tom Henighan, Rewon Child, Aditya Ramesh, Daniel M. Ziegler, Jeffrey Wu, Clemens Winter, Christopher Hesse, Mark Chen, Eric Sigler, Mateusz Litwin, Scott Gray, Benjamin Chess, Jack Clark, Christopher Berner, Sam McCandlish, Alec Radford, Ilya Sutskever, and Dario Amodei. Language models are few-shot learners, 2020.
- [2] Patrick Lewis, Ethan Perez, Aleksandra Piktus, Fabio Petroni, Vladimir Karpukhin, Naman Goyal, Heinrich Küttler, Mike Lewis, Wen tau Yih, Tim Rocktäschel, Sebastian Riedel, and Douwe Kiela. Retrieval-augmented generation for knowledge-intensive nlp tasks, 2021.
- [3] Long Ouyang, Jeff Wu, Xu Jiang, Diogo Almeida, Carroll L. Wainwright, Pamela Mishkin, Chong Zhang, Sandhini Agarwal, Katarina Slama, Alex Ray, John Schulman, Jacob Hilton, Fraser Kelton, Luke Miller, Maddie Simens, Amanda Askell, Peter Welinder, Paul Christiano, Jan Leike, and Ryan Lowe. Training language models to follow instructions with human feedback, 2022.

A Side-by-side Comparison: WPI Search Engine vs. AI Search Engine

A.1 Prompt: How can I contact the Financial Aid office?

The screenshot shows a search interface with a search bar containing the query "How can I contact the Financial Aid office?". Below the search bar are tabs for "PAGES", "LOCATION", and "PEOPLE". The results section shows "About 13,400 results (0.22 seconds)" and a "Sort by: Relevance" dropdown. The search results are as follows:

- FINANCIAL AID | WORCESTER POLYTECHNIC INSTITUTE**
www.wpi.edu › admissions › financial-aid
Our fax number is (508) 831-5039. To determine the steps needed to apply for **financial aid** at WPI, please select your enrollment status from the pictures below.
- CONNECT WITH US | WORCESTER POLYTECHNIC INSTITUTE**
www.wpi.edu › admissions › tuition-aid › connect
When submitting documents to our **office**, please fax them to 508-831-5039 or mail them to WPI **Office of Financial Aid**, 100 Institute Road, Worcester MA, 01609.
- CONTACT US - OFFICE OF FINANCIAL AID | WORCESTER POLYTECHNIC INSTITUTE**
mywpi.wpi.edu › finaid › contact-us
Office of Financial Aid, Bartlett Center 100 Institute Road Worcester, MA 01609 finaid@wpi.edu (508) 831-5369. WPI **Office of Financial Aid** Website ...
- FINANCIAL AID INFORMATION | WORCESTER POLYTECHNIC INSTITUTE**
www.wpi.edu › offices › bursar › billing › financial-aid
When **financial aid** is listed on your student account as anticipated aid, it will only be disbursed to your account upon the completion of the necessary WPI ...
- OFFICE OF STUDENT AID & FINANCIAL LITERACY IS NOW OFFICE OF FINANCIAL ...**
www.wpi.edu › news › announcements › office-student-aid-financial-li...
Jul 31, 2023 ... By changing to the **Office of Financial Aid**, we hope to make the **office** more easily accessible to the WPI community, students, and families. Most ...
- STUDENT EMPLOYMENT | WORCESTER POLYTECHNIC INSTITUTE**
www.wpi.edu › student-experience › resources › student-employment
... **Office of Financial Aid** as your proof of federal work study funding. If you have lost this **email**, **contact** the **office** at finaid@wpi.edu. When you find a job ...
- ADMISSIONS & AID | WORCESTER POLYTECHNIC INSTITUTE**
www.wpi.edu › admissions
A premier STEM-focused university in the heart of Massachusetts, WPI is known for what it does best: delivering an education that is project-based, ...

Figure 2: WPI Search Engine A.1

🔍 How can I contact the Financial Aid office? Search

AI-Generated Answer:

You can contact the WPI Financial Aid office in several ways:

1. **Email:** finaid@wpi.edu
2. **Phone:** 508-831-5469
3. **Fax:** 508-831-5039
4. **Office Location:** Bartlett Center

For any financial aid inquiries or to arrange an appointment, these contact methods are available. You can also request an appointment for in-person, virtual, or telephonic meetings, available Monday through Friday, between the hours of 9 am and 4 pm EST.

About 10 results Sort by: Relevance ▾

Financial Aid Application Status
<https://www.wpi.edu/admissions/tuition-aid/financial-aid-application-status>
 Enrolling (deposited) first year students will be notified on or after June 1st to begin using the Current Student Portal with their WPI credentials. Login Information APPLICANT PORTAL 508-831-5039 Financial Aid Application Status Admissions applicants (first year and transfers) should login to the Applicant Portal using the username and password created at the time of the application for admission...

Returning Undergraduate Students
<https://www.wpi.edu/admissions/tuition-aid/applying-for-aid/returning-undergraduate-students>
 To find out if all required documents are complete, visit the WPI Application Status Check system. Additional information regarding renewal applications and financial aid retention policies is available in the WPI Undergraduate Catalog. Individuals may also be referred to other sources of assistance that may be more appropriate to their circumstances. Individuals must complete the Emergency Assist...

Contact the Office of Institutional Advancement
<https://www.wpi.edu/offices/institutional-advancement/funding/contact-office-institutional-advancement>
 Offices 508-831-6004 Phone: funding CONTACT Foundation Relations Contact the Office of Institutional Advancement Higgins House Fax: 508-831-5345, 508-831-5209 Location:

Emergency Assistance & Special Circumstances
<https://www.wpi.edu/admissions/tuition-aid/types-of-aid/emergency-assistance-special-circumstances>

Figure 3: AI Search Engine A.1

A.2 Prompt: What are the upcoming events hosted by the WPI Career Development Center?

The screenshot shows a search engine interface with a search bar containing the query "What are the upcoming events hosted by the WPI Career Development Center?". Below the search bar are navigation tabs for "PAGES", "LOCATION", and "PEOPLE". The search results are displayed in a list format, showing the number of results (18,100) and the search time (0.16 seconds). The results are sorted by "Relevance".

Search results for "What are the upcoming events hosted by the WPI Career Development Center?":

- CAREER DEVELOPMENT CENTER WORCESTER POLYTECHNIC INSTITUTE**
Career Development Center Worcester Polytechnic Institute >
When you begin any job interview, your interviewer is likely to start the conversation with some sort of introductory question. Because of this, "Tell me about ...
- WAYS TO RECRUIT – CAREER DEVELOPMENT CENTER WORCESTER ...**
Career Development Center Worcester Polytechnic Institute > ways-to-recruit
WPI students are highly sought-after candidates by both local employers and those around the world. From their first days on campus, students solve ...
- EMPLOYER BRANDING – CAREER DEVELOPMENT CENTER WORCESTER ...**
Career Development Center Worcester Polytechnic Institute > employer-branding
WPI students and alumni could become your greatest and most effective recruiting assets. The Heebner **Career Development Center (CDC)** can help you create ...
- CDC WORKS TO IMPROVE JOB OPPORTUNITIES FOR GRADS WITH FAST-GROWTH ...**
WPI > news > cdc-works-improve-job-opportunities-grads-fast-...
Apr 2, 2018 ... WPI is working to provide strong resources to help its students find employment after graduation—whether in large corporations or smaller, ...
- CAREER DEVELOPMENT SERVICES - AND RESOURCES FOR WPI ALUMNI**
www.wpi.edu > sites > files > Offices > Career-Development-Center
File Format: PDF/Adobe Acrobat
The **CDC** hosts a variety of on campus **events** including: ... If you are interested in staying connected with the **CDC** and learning more about **upcoming events**, ...

Figure 4: WPI Search Engine A.2

What are the upcoming events hosted by the WPI Career Development Center? Search

AI-Generated Answer:

The upcoming events hosted by the WPI Career Development Center include:

- 1. Spring 2023 In-Person Career Fair**
 - Date: February 16, 2023
 - Time: 12:00 pm to 4:00 pm
 - Location: Sports and Recreation Center
 - Description: This is an opportunity for students and alumni from all degrees and disciplines to present themselves professionally in-person to potential employers, showcasing their communication skills. Attendees can seek full-time jobs, internships, co-op positions, or part-time experiences.
- 2. Workshop Wednesday: Career Fair Q & A**
 - Date: February 8, 2023
 - Time: 4:00 pm to 5:00 pm
 - Location: Career Corner - Unity Hall 5th Floor
 - Description: A session for students to have any questions about the In-Person and Virtual Career Fairs answered.

You can register for the events and get more details directly from official sources or the WPI Career Development Center.

About 10 results Sort by: Relevance

Spring Career Fair 2016
<https://www.wpi.edu/news/spring-career-fair-2016>
 On-campus recruiting events, like the Career Fair, continue to be popular on the WPI campus. The Career Development Center saw a rise in the number of companies interested in conducting on-campus interviews and information sessions this past fall, and this trend is continuing during the spring recruiting season. All of these recruiting initiatives assist WPI students with their post-graduation pl...

Spring Career Fair 2015
<https://www.wpi.edu/news/spring-career-fair-2015>
 Spring Career Fair 2015 For many, the practical experience gained with a college education is only as good as the doors it opens up for them. This Thursday, the Career Development Center will offer students and alumni an array of opportunities as it hosts this year's annual Spring Career Fair. WPI Today are expected to attend Thursday's Career Fair Career Development Center Following the fair, stu...

Career Development
<https://www.wpi.edu/student-experience/career-development>
 Pre-Professional Studies Meet New Employers Policies Workshop Wednesday: How to Work a Career Fair Workshop Wednesday: Career Fair Q & A Alumni & Working Professionals Hire WPI Announcements Calendar First Destination Outcomes Report of the Class of 2020 (PDF) Spring 2023 In-Person Career Fair 12:00 pm International House October 12, 2022 Career Outcomes & Salary Data First-Destination Success App...

CDC Employer Newsletter - January 2021
<https://www.wpi.edu/news/announcements/cdc-employer-newsletter-january-2021>
 WPI Today November 18, 2020 Executive Director, Career Development Center Thursday, February 18th 12:00 - 3:00 pm Spring Education Programs and Panels for WPI Students Spring 2021 Virtual Career Fair Series - Registration Open! The February Spring Virtual Career Fair Series is open for employer registration. This series is a wonderful opportunity to engage with our studen...

Spring Career Fair - 2014
<https://www.wpi.edu/news/spring-career-fair-2014>
 STUDENT TIP February 20, 2014 DEPARTMENT(S) On Thursday, Feb. 20, over 170 employers from a variety of industries come to campus for the annual spring Career Fair, held in the Sports and Recreation Center from 12:30 to 4:30pm. WPI Today "Our students are in demand." With national unemployment at 6.6 percent, and college students graduating with increasing debt and tight job prospects, those in the...

Figure 5: AI Search Engine A.2

Note: The data used by the AI Search Engine is from February 2023

A.3 Prompt: Where can I go in Worcester on a weekend?

The screenshot shows a search engine interface with a search bar containing the query "Where can I go in Worcester on a weekend?". Below the search bar are tabs for "PAGES", "LOCATION", and "PEOPLE". The search results are displayed below, showing "About 6,810 results (0.29 seconds)" and a "Sort by: Relevance" dropdown menu. The results list several pages from the Worcester Polytechnic Institute website, including "FAMILY WEEKEND | WORCESTER POLYTECHNIC INSTITUTE", "FAMILY WEEKEND 2023 | WORCESTER POLYTECHNIC INSTITUTE", "WPI VISIT | SCHEDULE A VISIT TO WPI IN WORCESTER, MA", "FAQS | WORCESTER POLYTECHNIC INSTITUTE", and "COMMENCEMENT | WORCESTER POLYTECHNIC INSTITUTE".

Q Where can I go in Worcester on a weekend? SEARCH

PAGES LOCATION PEOPLE

About 6,810 results (0.29 seconds) Sort by: Relevance

FAMILY WEEKEND | WORCESTER POLYTECHNIC INSTITUTE
www.wpi.edu › news › annual-events › family-weekend
Please check back for more details about the schedule later this summer. Questions can be directed to gr-fw@wpi.edu.

FAMILY WEEKEND 2023 | WORCESTER POLYTECHNIC INSTITUTE
www.wpi.edu › news › calendar › events › family-weekend-2023
Sep 8, 2023 ... Mark your calendars and **get** ready for an unforgettable **weekend** at WPI! We are excited to invite our students and their families to join us ...

WPI VISIT | SCHEDULE A VISIT TO WPI IN WORCESTER, MA
www.wpi.edu › admissions › undergraduate › visit
Feb 24, 2024 ... **Visit** with Us · Your **visit** to WPI will include an information session followed by a campus tour given by a WPI student · While many restrictions ...

FAQS | WORCESTER POLYTECHNIC INSTITUTE
www.wpi.edu › news › annual-events › reunion-weekend › faqs
Q: Who can attend Reunion **Weekend**? A: Reunion **Weekend** is open to all WPI alumni and their guests. There will be classes celebrating reunions, but a majority of ...

COMMENCEMENT | WORCESTER POLYTECHNIC INSTITUTE
www.wpi.edu › news › annual-events › commencement
WPI's Commencement Ceremony dates back to 1871 when the university sent the 16 young men of its very first graduating class out into the world.

Figure 6: WPI Search Engine A.3

Where can I go in Worcester on a weekend? Search

AI-Generated Answer:

Worcester offers a variety of activities and destinations you can enjoy over the weekend. Here are some options:

1. Explore Nature and Parks:

- Visit Quinsigamond State Park to swim, sail, picnic, or fish.
- Walk, bike, or run along the Blackstone River Bikeway.
- Visit the Tower Hill Botanic Gardens in nearby Boylston for beautiful garden displays.
- Explore the EcoTarium, Worcester's indoor/outdoor museum, which is interesting for its nature exhibits.

2. Cultural and Historical Activities:

- Explore Worcester Art Museum; it's free for students with an ID every Saturday and Sunday.
- Discover historical treasures at the American Antiquarian Society.
- Attend performances at notable venues like The Hanover Theatre or Mechanics Hall.

3. Shopping and Dining:

- Check out Worcester's Shoppes at Blackstone Valley for a variety of shops and restaurants.
- Dine at popular spots on Shrewsbury Street, known for a wide array of restaurants.
- Visit the Worcester Public Market for local foods and goods.

4. Sports and Entertainment:

- Catch a game of the Worcester Red Sox at Polar Park.
- Enjoy a Worcester Railers hockey game at the DCU Center.
- See what's playing at Worcester North Cinemas or go ice skating at the Worcester Common Oval.

5. Events and Activities:

- If you're a thrill-seeker, see if your group can escape an adventure game at Escape Games Worcester.
- Attend a laughter-filled night at WooHaHa for a stand-up comedy act.
- Check out art, culture or lifestyle events like food truck festivals, fairs, or stART on the Street.

6. Student-Focused Activities:

- Join your peers at various WPI student activities and organizations' events like those organized by WPI SocComm.
- Gather with friends for collective enjoyment at venues like Central Rock Gym during College Nights or Canal District for vibrant nightlife and activities.

You can utilize the WRTA for convenient transportation around the city or take the CityRide shuttle during weekends to reach popular spots for food, shopping, and entertainment. This should provide you with ample opportunities to enjoy and explore the vibrant city of Worcester on a weekend.

About 10 results

Sort by: Relevance

100 Things to Do

<https://www.wpi.edu/student-experience/getting-involved/things-to-do>

See one of the many a cappella, choral, or orchestra groups on campus. Take the MBTA (train or bus) into Boston for the day from Union Station. Order a Shaq pizza from the Campus Center and share with friends. See science and nature connect at the EcoTarium. Check out Thursday night College Night at Central Rock Gym. Check out unique stores and restaurants at Crompton Place, such as Birchtree Bread ...

Vibrant College Town

<https://www.wpi.edu/about/worcester/vibrant-college-town>

With 38,000+ students, how can it not be? From wildlife sanctuaries and botanical gardens to diners and indie marketplaces (indoor and out), there's lots to explore, and even more to do. It won't take long for you to stumble upon your new favorite restaurant, shop, museum, or spot in the park (we're home to one of the oldest in the country, after all)—and when you do find it, share it with us! We ...

Trips

<https://www.wpi.edu/student-experience/resources/international/orientation-program-graduate/trips>

3rd Floor The Student Experience During the program, you will have the opportunity to visit local cities and historic sites that will immerse you directly into America's early years. These trips will give you a better understanding of the history that led America to be the "melting pot" it is today. It will also give you the opportunity to explore parts of New England and surrounding areas you may...

Family Weekend

<https://www.wpi.edu/news/annual-events/family-weekend>

2022 Family Weekend: Catholic Mass Questions about directions and transportation for your visit? Where to stay? Area dining options? Get all the information you need to plan your visit! #WPIFamily -WPI Family -Rubin Campus Center WPI Today We look forward to celebrating Family Weekend September 16 through September 18, 2022 on campus. Look out for more information over the summer regarding registration and ...

WAM is Free Today

<https://www.wpi.edu/news/wam-free-today>

Visit the Library, tour the galleries, hang out at SIP, or attend the Drawing Club from 1 to 3pm where WAM provides the supplies! (Check at visitor service desk for location of drawing club; locations vary week to week.) Simply show your ID and a wealth of art will be at your fingertips – all within a 10-minute walk from campus! The Worcester Art Museum is located at 55 Salisbury Street, 508.799.4...

Figure 7: AI Search Engine A.3