Mason Gobat

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Education

Bachelor of Science in Computer Science

University of Pittsburgh, Pittsburgh, PA   *Expected Graduation Dec 2024*

- 3.8 Cumulative GPA
- **Relevant Courses:** Algorithms & Data Structures 1 & 2, Intro to Systems Software, Software Quality Assurance, Intro to Computational Linguistics

Employment

Lead Programmer

Center for Branding, Katz Graduate School of Business, Pittsburgh, PA

May 2022 – Current

- Developed a Python-based pipeline to transform user affiliate marketing data into brand congruence scores, underlined: efficiently processing over 22 million rows of data.
- Utilized the generated brand congruence scores as predictive metrics, identifying and recommending new candidates for brands to target in their affiliation programs, optimizing outreach efforts.

Computer Science Undergraduate Teaching Assistant

School for Computing and Information, University of Pittsburgh, Pittsburgh, PA

August 2023 – December 2024

- Conducted regular office hours to help students troubleshoot Java-based projects and labs.
- Led weekly recitation sessions to provide in-depth explanations of lab assignments and projects, ensuring students' comprehension and facilitating a smoother completion process.

Projects

Cathedral Floor Plan Generator

- Developed a Python program implementing the wave function collapse algorithm to generate digital floor plans for gothic cathedrals.
- Parsed architectural rules from an XML document to inform the algorithm.
- Showcased the floorplans using NumPy graphs through the combination of image tiles.

Shakespeare's Slights

- Worked with XML based programming languages to extract and analyze insults across Shakespearean plays.
- Transformed results into a website using XSLT, CSS, and JavaScript.

AI Video Generator

- Created a Python script to control a web driver with the selenium library to gather content from Wikipedia and generate an AI assisted summary of that content.
- Parsed text with regular expressions and generated audio with edge-TTS that was combined with a video to mimic YouTube and TikTok shortform content.

Skills

Languages: Java, Python, C, HTML & CSS, XML (+)
Technologies: Git, AWS, Unix/Linux