

Hugo Manrique-Pinell

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Summary

Aspiring software engineer and web developer with a strong focus on continuous learning and hands-on project development. Currently pursuing academic excellence while actively building a solid foundation in software engineering principles. Eager to contribute to innovative teams, solve complex problems, and grow into a role where I can make a meaningful impact on product development and people.

Education

University Of Mary Washington

B.S. Computer Science

Grades: 3.28 GPA

Fredericksburg, VA

Expected: May 2026

Personal Projects

HugoBot | React, Tailwind, Vite, OpenAI API, Node.js, Express.js, Git ([Link](#))

- Developed an interactive 3D virtual companion app using React Three Fiber and Blender, optimizing the avatar's animation logic by eliminating idle state errors through effective state management
- Integrated OpenAI API and ElevenLabs API for real-time chatbot responses and text-to-speech capabilities
- Enhanced the system's responsiveness and decreased API response time through optimized backend processes
- Engineered a responsive user interface with Tailwind CSS, and implemented dynamic components with conditional rendering, reducing UI inconsistencies

BringTheMenu | Vue.js, HTML, CSS, JS, Adobe Products, Figma, Git ([Link](#))

- Engineered a real-time meal deal finder tailored for students, leveraging AI to offer personalized restaurant recommendations around campus
- Applied Agile development methodologies, including Scrum, to manage project tasks and maintain a flexible and iterative approach throughout the development cycle

Zork | Java, Bash, Git ([Link](#))

- Developed a custom command-line interface text-based adventure game with interactive mechanics, a large map, and unique win conditions, enhancing engagement and gameplay variety
- Streamlined development workflow by creating Bash aliases for faster compilation and execution, boosting developer efficiency
- Implemented save/load functionality and modular dungeon switching, improving user experience

Experience

Research Intern

August 2023 – September 2024

Medstar Health Research Institute

Remote

- Developed a Google Apps Script in JavaScript that automated the upload of 250+ videos to Google Cloud Storage, integrating with a Python-based Google Cloud Function to convert and store videos, reducing reliance on manual work and costly third-party services
- Developed Python-based data pipelines that concatenated, cleaned, and trimmed datasets containing over 350,000 records, ensuring data readiness
- Automated data visualization using Python and YData Profiling, enabling the research team to quickly identify trends from datasets containing over 500,000 records
- Created comprehensive data dictionaries for various datasets, analyzing and defining over 300 variables using Python and Pandas, improving data usability

Technical Skills

Languages: Python, JavaScript, Java, HTML, CSS

Frameworks: React

Tools & Technologies: Git, VIM, Linux, SQL