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## Work Experience

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### Wave Life Sciences

Cambridge, MA

Data Science and Tech Intern

06/2022 - 09/2022

- Integrated OpenAI's API into a website bot to enhance user interaction with site navigation and work-related questions.
- Designed AI-driven chatbots with python and leveraged TensorFlow to train a bot for interpreting JSON data.
- Developed a Discord bot with NLP capabilities and ensured 24/7 operation via Uptime Robot.
- Streamlined data aggregation, analysis, and organization using custom KNIME workflows, Python and R.

### Marist Game Studio

Poughkeepsie, NY

Game Developer

01/2021 - 06/2021

- Collaborated with teammates to develop a fully functional game, managing dialogue, scripting, art assets, and coding in C# to meet client specifications.
- Designed and delivered feature presentations for client feedback and approvals.
- Published the completed game on itch.io following client sign-off.

### Marist Poll

Poughkeepsie, NY

Data Assistant

01/2020 - 01/2022

- Optimized data management in Excel, ensuring data integrity.
- Revised press releases and content, improving clarity and accuracy.
- Conducted research and used SPSS for statistical analysis to inform strategy.

## Education

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### Boston University College of Arts and Sciences

09/2022 - 01/2025

Computer Science

**Relevant Coursework:** Software Engineering, Full stack development, Advanced Software Systems, Computer Systems, Advanced Topics in Artificial General Intelligence, Applied Machine Learning, Operating systems.

### Marist College

08/2018 - 12/2021

**Relevant Coursework:** Software Development 1 & 2, Discrete Mathematics, Game Design.

## Competitions and Awards

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### **Kaggle Competition - Chatbot Arena Human Preference Predictions**

06/2024 – 08/2024

- Finished in top 15%, leveraging new LLM models (Llama 3.1, Gemma2) and Transformers in PyTorch to optimize predictions.
- Improved log loss from 0.941 to 0.910 on the public leaderboard and 1.015 to 0.927 on the private leaderboard using TTA and fine-tuning.

### **Boston University Hackathon**

10/2022

- Won \$1,500 and 2nd place (out of ~50 teams) for designing a novel web app using HTML, CSS, JavaScript and Figma for formatting menus and screens.

### **Great Pirate Challenge**

12/2023

- Came in 9th place in a class of 200 for creating a multi-threaded image server in C utilizing semaphores and multi-threading algorithms. Deployed the server and client in Docker containers.

## **Skills and Independent Projects**

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### **AI & Machine Learning Skills:**

- PyTorch, TensorFlow, LLMs (Llama 3.1, Gemma2), AI model training and inference, NLP, Chatbot Development

### **Development Skills:**

- Java, HTML, CSS, SASS, AJAX, Swift, Flutter, React, Python, JavaScript, C++, C, C#, SQL, GoLang, R, Figma, RESTful API, UI and UX Design
- Node.js, Angular, TCP/IP, MongoDB Debian/Ubuntu, Git, Docker, KNIME, Xcode

### **Independent Projects:**

- **AIDA:** A responsive React website featuring a fully integrated front end and back end, secure database integration with encryption for storing usernames and passwords, and API integration connecting a custom ChatGPT model to the chat interface.
- **Nedial Falls:** Developed a functional game world using OOP to create a complex tree system, object dialogues and dialogue boxes, a functional inventory management system, door-triggered room loading, and a day-night cycle. This project enhanced my skills in task breakdown, problem-solving, and software development, particularly in managing complex systems and interactions.
- **Django Website:** The website integrates Django models, RESTful APIs, and JavaScript for dynamic functionality and seamless interactions. Leveraged SQL for data persistence and ensured scalability and reliability through Heroku hosting. The website features:
  - **Oregon Trail:** An interactive game where users can design a party of players, save their scores, and avoid game dangers to optimize their position on a leaderboard. All art and animations were also hand drawn and designed.
  - **Mini Facebook:** A social media platform where users can edit their profiles, post messages, add friends, and view a customized feed of their friends' posts.
  - **Voter Analytics:** Tools to analyze, sort and visualize voting data.
  - **Authentication System:** Secure login and logout functionality with encrypted user credentials stored in a SQL database.
  - **Link:** <https://murmuring-inlet-76962-8050cc1767cc.herokuapp.com/>

### **Critical Thinking and Learning:**

- Rapid learner with the ability to quickly grasp new concepts and technologies
- Strong analytical skills for understanding and solving complex problems
- Always working on projects or learning new skills to create new products and solutions