Cameron Angliss

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EDUCATION

The University of Texas at Austin

Austin, TX

Master of Science - Computer Science - GPA: 3.78

Aug. 2023 – Present

Connecticut College

New London, CT

Bachelor of Arts - Majors: Computer Science, Mathematics, Physics - GPA: 3.99

Aug. 2018 - May 2022

EXPERIENCE

Software Engineer June 2022 – July 2023

ThayerMahan, Inc Groton, CT

- Developed frontend and backend aspects of company's software for three major repositories
- Migrated thousands of lines of JavaScript to TypeScript, reduced several years worth of tech-debt
- · Communicated with users and observed users interacting with website to understand their perspective
- Implemented highly-requested data visualization upgrades to boost user productivity and capability

DevOps Engineer Intern

May 2021 - Aug. 2021

Nuance Communications, Inc

Birmingham, MA

- Selected for internship in elite cloud computing infrastructure team, noticed team's low security score of 20%
- Created pull requests on Docker and Kubernetes files and Python scripts, eliminated 20+ security vulnerabilities
- Fortified team's security score from 20% to 75%, braced team's infrastructure for the 2022 Microsoft acquisition
- Acquired skills in 10+ tools/methodologies (ex. Azure DevOps, Docker, Kubernetes, Helm, Git, Agile workflow)

Math Help Center Tutor, Computer Science TA

Aug. 2019 - May 2022

Connecticut College's Academic Resource Center

New London, CT

- Tutored 8 math classes and 3 upper-level computer science classes (Algorithms, AI, Computational Intelligence)
- Designed and implemented creative strategies to familiarize students with particularly difficult concepts
- Determined student's knowledge level, identified areas of weakness, offered extra 1-on-1 help for struggling students
- Appointed as manager of MHC in junior year, optimized MHC to cope with COVID lockdown, scheduled 4 weekly tutoring sessions, informed professors of struggling students, provided mentorship to new math tutors

PROJECTS

Cynthia: The Pokemon Showdown RL Agent | *Python, Pytorch*

Mar. 2023 - Present

- Coded a reinforcement learning agent that learns to play Pokemon battles on Pokemon Showdown website
- Implemented reinforcement learning with Expected SARSA algorithm, softmaxing over outputs to choose action
- Implemented transformers architecture to improve over CNN architecture taking state-based inputs of battle state
- · Continuing to research ways to improve system to be competitive with average (eventually expert) human players

Showdown Environment | *Python*

Mar. 2023 - Oct. 2023

- Coded a reinforcement learning environment for agent training on the Pokemon Showdown website
- Includes 3 main parts: a client-side interface written in websockets, an object that reads the website's protocol messages to track the battle's state, and a script to collect data from the website on pokemon, moves, items, abilities, etc
- Published the project on GitHub as open-source code for anybody to use or improve upon for their personal needs

Undergraduate Research in Genetic Algorithms and Robotics | Haskell

Aug. 2020 - Feb. 2023

- · Conducted independent AI research with Professor Gary B. Parker through research seminars and honors studies
- · Built 6 parallel genetic algorithms to evolve teams of neural network agents to generate optimal hexapod gaits
- Utilized math and physics knowledge to design efficient and accurate hexapod simulation for training
- · Coded over 1100 lines of code in Haskell, learned modern functional programming techniques
- Authored honors thesis titled "Using Multi-Agent Learning to Achieve Emergent Decentralized Hexapod Gait"
- Coauthored and published "Coevolving Hexapod Legs to Generate Tripod Legs" to ICAART 2023 conference

TECHNICAL SKILLS

Languages: Python/Mojo, Rust, Haskell, Java, JavaScript/TypeScript, HTML/CSS, Mathematica

Frameworks: Angular, Node.js

Developer Tools: Linux, Git, VSCode, Docker, Kubernetes, Azure DevOps, AWS

Libraries: Pytorch, NumPy, Matplotlib, pandas