Cameron Quilici

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Education

Texas A&M University **Sep. 2020 – present**
B.S. in Computer Science & B.S. in Applied Mathematics - 3.94 GPA - Distinguished Student Award *College Station, TX*

Relevant Coursework

Computer Science: Data Structures and Algorithms, Analysis of Algorithms, Parallel Computing, Artificial Intelligence, Machine Learning, Operating Systems, Discrete Mathematics, Computer Architecture
Mathematics: Algebra, Real Analysis, Cryptography, Number Theory, Linear Algebra, Combinatorics, Scientific Programming

Experience

Texas A&M University - CSCE Department **May 2023 - Present**
Undergraduate Research Assistant *College Station, TX*

- Collaborated under the guidance of Dr. Timothy Davis on advanced graph algorithm projects.
- Focused on leveraging the GraphBLAS C API to implement established graph algorithms, aiming to optimize performance.
- Engaged in regular meetings with the research team, discussing algorithmic strategies, challenges faced, and iterative solutions to improve algorithm efficiency.

Hewlett Packard Enterprise / Cray Inc. **May 2023 – August 2023**
Software Engineer Intern *Spring, TX*

- Helped develop a tool that enables developers to initiate a local service pointing at a GCP VM. This VM hosts a REST service, "Launcher", capable of executing DeterminedAI experiments within multiple containers such as Podman, Apptainer, and Enroot, all seamlessly operating atop SLURM or PBS workload managers.
- Significantly enhanced testing efficiency by transitioning CircleCI test suites from on-prem runners to GCP-based SLURM/PBS VMs, reducing test suite durations by an nearly 33% on average.
- Architected and executed scripts leveraging Terraform to automate the creation of GCP instances. Additionally, displayed expertise in image creation by devising both SLURM and PBS images using Packer and Ansible, which necessitated an in-depth understanding and configuration of the two major workload managers.

Hewlett Packard Enterprise / Cray Inc. **May 2022 – August 2022**
Software Engineer Intern *Seattle, WA*

- Worked collaboratively with a team of 8-10 senior software engineers to help develop the "Launcher" product that can train and run DeterminedAI machine learning models distributively on supercomputer clusters.
- Tested and updated software using PyTest and CircleCI. Became familiar with the CI/CD process and corresponding skills.
- Developed Bash scripts to allow developers to launch jobs remotely via REST calls under the privacy of their own user account.
- Developed a tool that allows users to create a personal authentication token that gives non-root developers access to query SLURM job information on a given cluster.
- Learned multiple developer skills such as Docker, Kubernetes, Maven, Unix/Linux, Bash, Go, SSL, SSH, RESTful API, and more.

Texas A&M University Academic Success Center **December 2021 – August 2022**
Mathematics and Engineering Tutor *College Station, TX*

- Used my knowledge of science and engineering to help various students in their respective disciplines.
- Broke down complex subjects such as multi variable calculus, linear algebra, and calculus-based physics into simpler, more easily digestible bits of information.
- Worked up to 15 hours a week while simultaneously engaging in a full-time course load and maintaining an executive position in social clubs.

Projects

Tic-Tac-Toe Solver | *Python* **January 2023**

- Engineered a game solver that utilizes the minimax algorithm to analyze optimal moves for the computer player.
- Achieved a gameplay where the computer either wins or draws, never losing to the human player.
- Explored recursive strategies to assess all potential game states, ensuring the prediction of the most favorable moves.

Technical Skills

Programming Languages: (Proficient) Python, Java, C++, Bash (Intermediate) Javascript, Go, HTML/CSS (Familiar) C#
Developer Tools: Maven, Make, Android Studio, Agile Development Process, Terraform, Ansible, Packer
Technologies/Frameworks: Unix/Linux, Git, Docker, Kubernetes, Jenkins, CircleCI, PyTest, Google Cloud Platform

Leadership / Extracurricular

Sigma Chi Fraternity **Fall 2022 – present**
Treasurer *Texas A&M University*

- Managed annual financial transactions and cash flows, overseeing an $800,000 USD budget derived from member dues, house mortgage payments, and various fraternity events.
- Introduced and implemented efficient financial tracking systems, utilizing spreadsheets and accounting software, enhancing transparency and accountability across 200 members.
- Demonstrated strong analytical skills by forecasting and budgeting for future events and projects, ensuring optimal use of resources and preventing over-expenditure.