Cameron Dart

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Education

Bachelors of Science in Mathematics and Computer Science **May 2018**
University of Illinois at Urbana-Champaign, Champaign, IL

Technical Skills

Haskell | Rust | Nix | Zig | NixOS | C | C++ | Bash | Python | MATLAB | GDB/LLDB | RF Testing

Work Experience

Anduril Industries - Engineer **May 2019 - March 2024**
Orange County, CA

- Lead software engineer for an eight-figure counter unmanned aerial systems (cUAS) electronic warfare (EW) program
- Increased battery life of sentry tower by 950% by optimizing radar signal processing
- Authored core Rust libraries and build infrastructure supporting cross-compilation that runs on all products

Fair Financial Corp - Software Engineer in Data Engineering **May 2018 - May 2019**
Santa Monica, CA

- Saved 40 hours/week and enabled the company to pledge $2,000,000+ of assets on a biweekly basis with data pipelines
- Spearheaded Publisher/Subscriber architectures for asynchronous communication in a distributed environment
- On-boarded and mentored mid-level engineer on best practices in Python

Sprite Robotics - Software Engineer **March 2018 - June 2018**
Remote

- Implemented RESTful Flask (Python) services for firmware distribution process using AWS EC2 and S3
- Setup continuous integration (CI) using Gitlab-CI to automate a suite of pytest tests
- Created initial star schema data model in SQL for customer, firmware, and hardware data

Laboratory of Computational Plasma Physics - Undergraduate Researcher **Summer 2017**
Champaign, IL

- Integrated C-based unit tests with Python integration tests for petascale Ordinary Differential Equation (ODE) solver
- Implemented statistical algorithms such as reservoir sampling in C
- Converted GNU Makefile to CMake build system

Peach Academics - Software Developer **Fall 2016 - Spring 2017**
Remote

- Collaborated remotely to build a peer-to-peer tutoring platform using Django, NodeJS, AngularJS, and Amazon Web Services
- Designed and managed distributed applications with a service-oriented architecture
- Configured NGINX as a reverse proxy for Django, Node, and websocket servers with LetsEncrypt SSL certificates

Publications and Patents

- Modular system for detecting, tracking and transmitting to identified objects (2024202362)
- Abstract: CP11.00025 : Progress on the Development of the hPIC Particle-in-Cell Code

Research Experience

Illinois Geometry Lab - P415X **Spring 2016, Spring 2017**
Prof Cary Malkewicz and Prof Jenya Sapir

- Created games that provide visual intuition on linear algebra topics without a formal, mathematical introduction
- Used in the teaching of linear transformations, non-standard bases, and eigenvectors to classes of 400+ undergraduates
- Managed a group of undergrad developers and gave weekly presentations to professors and graduate students.