Cameron Dart

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Education

Bachelors of Science in Mathematics and Computer Science **August 2014 - May 2018**
University of Illinois at Urbana-Champaign, Champaign, IL

Coursework
OOP | Data Structures | Discrete Math | Calculus I, II, III | Linear Algebra | Probability Theory | Number Theory
Abstract Algebra | Systems Programming | Computational Theory and Algorithms | Numerical Methods | Real Analysis
Programming Languages and Compilers | Graph Theory | Numerical Analysis | Nonlinear Programming

Technical Skills
Python | JavaScript | C | LaTeX | Scala | Bash | Java | Haskell | Git | Linux | Docker

Work Experience

Peach Academics - Software Developer **Current**
Remote

- Collaborated remotely to build P2P virtual tutoring system using Django, NodeJS, Angular, and Amazon Web Services
- Automated builds, deployments, and system administration tasks using Fabric, Docker, and GitLabCI
- Configured NGINX as reverse proxy for Django, Node, and websocket servers with LetsEncrypt SSL certificates

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

- Converted standard GNU Makefile to CMake build system
- Integrated C based unit tests and Python integration tests in CTest
- Implemented rejection sampling algorithm with uniform instrument
- Paper accepted and will present at the Annual Meeting of the APS Division of Plasma Physics

Tesla - Software Engineering Intern **Fall 2015, Summer 2016**
Fremont, CA

- Migrated service from MongoDB to MySQL, integrated into Drupal CMS, and designed React frontend for querying
- Developed in-house IP Address to location NodeJS service that handles millions of a requests per month
- Setup eCommerce tracking with Google Analytics and ran A/B tests with Optimizely for the marketing team.

MasterCard - Software Engineering Intern **Summer 2015**
O'Fallon, MO

- Prototyped MEAN stack web application estimated to save $\$250,000$ a year
- Collaborated with UI designer to build an interactive data visualization using D3JS and MasterCard internal APIs
- Optimized time and space complexity in Python error log scanning script

Research Experience

Attention Networks For Classification of Brain Images **Spring 2017**
Prof Sanmi Koyejo, Urbana, IL

- Trained a 3-D Convolutional Neural Networks (CNN) using Tensorflow for the classification of two task MRI images resulting in 95% accuracy
- Modified CIFAR-10 CNN to predict brain age from fMRI data
- Attended weekly Machine Learning and Computer Vision seminars discussing recent work in respective fields

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 group of undergrad developers and gave weekly presentations to professors and graduate students.

Leadership Experience

First Robotics Competition (FRC) Team 5677 Mentor
CS@Illinois Splash Teacher
CS 196 Course Assistant