Derek McCreight

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I'm a Stanford CS Master's student seeking Full-Time/Internship Software Engineering opportunities. I have work, project, or research experience in each of the following: **Java, C++, C, Python, Swift, JavaScript**. In addition, I'm familiar with **Android**, **macOS**, and **iOS** development, **Computer Graphics**, and the **UNIX** environment.

Education

- **Stanford University** 2016 - 2021 (Expected)
  MSc, BSc, Computer Science — Bryant Tan Memorial Scholar *3.844 GPA*
  - Completed coursework in Programming Abstractions (**C++**), Analysis of Algorithms (**Python**) Object-Oriented Principles and System Design (**Java**, **Android**), Computer Graphics (**C++**), Computer Organization and Systems (**C**), Principles of Computer Systems, Principles and Techniques of Artificial Intelligence, Multivariable Calculus, Linear Algebra, and Applied Matrix Theory.

Work Experience

- **Tesla, Inc.** June 2020 - September 2020
  Software Engineering Intern
  - Designed app feedback pipeline for the Tesla V4 Mobile app in native Android/iOS using redux-sagas **(React Native)**, and Alamofire, an open-source networking framework.
  - Implemented a redesign for the mobile app across multiple features, including the vehicle overview, valet mode, and vehicle status screens.
  - Implemented Right-to-Left language support for Hebrew and Arabic to support app internationalization and deployment in Hebrew and Arabic-speaking countries.
- **Apple, Inc.** June 2019 - September 2019
  Software Engineering Intern, Core Services
  - Created a macOS platform to improve the multi-device bug screening workflow, using Swift and Objective-C.
  - Demonstrated the platform to senior executives at Apple, and deployed the platform to software and QA engineers for use in optimizing bug screening inefficiencies.
- **CS109, Probability For Computer Scientists** September 2020 - Present
  Course Assistant & Section Leader
  - Led bi-weekly sections of over 50 students covering key concepts in Probability Theory.
  - Supported day-to-day class functions through grading, weekly office hours, student debugging sessions, and creating weekly Section Handouts.
- **Russell Fernald Lab, Stanford University** May 2017 - August 2017
  Research Assistant
  - Developed a model in R which aggregates biological data to perform statistical analysis of aggression-based behaviors in the species A. burtoni
  - Gained experience in both computer science, and statistical methods, culminating in a presentation of my research at the Stanford Undergraduate Research Presentation Symposium (SURPS)

Selected Projects

- **Human Activity Recognition (CNN/LSTM)**: Developed two deep learning models, a Convolutional Neural Network and an LSTM to detect different kinds of human activities from accelerometer and gyroscope data.
- **California Fire Risk Segmentation (U-Net)**: Implemented custom U-Net architecture for semantic segmentation to identify areas in California at higher risk of wildfires.
- **Movie Review Classification (Python)**: Used the Netflix dataset to classify reviews for a specific movie based on past viewing data. Used both logistic regression and Naive Bayes.
- **Heap Allocator (C)**: Re-implemented `malloc`, `realloc`, `free`, and other core memory management functions in C, using optimization techniques and achieved a 97% utilization rate.