Kevin Hu

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education

University of California, Berkeley **2018 – 2022**

B.S. Electrical Engineering and Computer Science

- GPA: 3.955 / Technical: 4.0
- Regents' and Chancellor's Scholar
- Coursework includes: Data Structures, Algorithms, Machine Structures, Discrete Math and Probability, Linear Algebra, Data Science, Artificial Intelligence, Optimization Models, Machine Learning, Computer Graphics, Databases
- Ongoing: Computer Security, Computer Vision and Computational Photography, Deep Reinforcement Learning and Decision Making and Control

experience

Apple **Jun 2020 – Aug 2020**

Software Engineering Intern

- Developed frontend and backend features for internal tools used to localize thousands of lines of text per week across all Apple software and for all international customers
- Creates backend string storage and API endpoints using **Ruby on Rails** and **PostgreSQL** for the purpose of centralizing and relating discussions regarding thousands of strings, based on the #1 feature request from speaking with localizers

Associated Students of the UC Office of the CTO **Sep 2018 – Present**

iOS Team Lead

- Lead for iOS team for Berkeley Mobile, the official campus mobile application with over **10,000 users**
- Migrated app to Firebase to utilize caching features to cut costs associated with handling ~1,000 monthly Heroku queries
- Developed **CI pipeline** for automated testing and internal deployment
- Implemented thorough code-review process to improve stability and increase crash-free users to near 100%

The Daily Californian **Dec 2019 – Present**

Project Tech Lead

- Consultant and technical lead for the Product Marketing team's **native iOS** app for The Daily Californian newspaper
- Leads small team of 5 developers and collaborates with the newspaper's other departments to ensure MVP is completed on schedule and with sufficient quality
- Oversaw internal beta and gathered tester feedback to **plan development timeline**

Qualcomm **Jun 2019 – Aug 2019**

GPU Intern

- Performed competitive analysis of **Metal 2** tile shaders in **Forward+** renderers to aid future GPU design
- Optimized internal **C++ OpenCL** library and kernels for more efficient execution of low-level applications on IoT devices

Neuroverse **May 2016 – Apr 2018**

Software Engineering Intern

- Utilized **OpenGL ES** to render and orient .obj 3D models to real-time gyroscope data
- Integrated **Apache's Avro** data serialization library to significantly reduce dataset sizes

projects

Path Tracer and Progressive Photon Mapper **Jan 2020 – Apr 2020**

- Implemented simple **Monte Carlo path tracer** in **C++** and wrote simple **GLSL** vertex and fragment shaders
- Modified path tracer and implemented **Progressive Photon Mapping** with a **k-d tree** to substantially decrease noise compared to the Monte Carlo path tracer with **finite memory**, particularity for rendering caustics

OctoberLock **October 2019**

github.com/KevWho/OctoberLock

- Integrated August smart locks with **Google Vision API** to approximate a building's population over time
- Deployed **Flask** backend to handle responses from August's API and analyze doorbell images, **React** and **Node.js** frontend

tools

C, Objective-C, C++, Swift, Python, Java, Ruby, Rails, scipy / numpy / sklearn, OpenGL, OpenCL, Metal, Vulkan, Node.js, Flask, React, Cocoa Touch, Xcode, Visual Studio, AWS, git, PostgreSQL, Linux