CODY HSIEH

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EDUCATION

University of California, Berkeley   Expected May 2019
B.S. Electrical Engineering and Computer Science

COURSEWORK

- CS 162: Operating Systems
- CS 188: Artificial Intelligence
- CS 189: Machine Learning
- CS 176: Computational Biology
- CS 170: Efficient Algorithms and Intractable Problems
- Music 158A: Sound and Music Computing
- CS 61C: Great Ideas in Computer Architecture
- EE 16A/B: Designing Information Devices and Systems

SKILLS AND LANGUAGES

Languages	Python, Java, C/C++, JavaScript, HTML, CSS, PHP, SQL, LATEX
Frameworks	TensorFlow, Pandas, NumPy, SciKit, AngularJS, jQuery, Pug, Sass, Gulp, Yarn, Pytorch
Tools	PHPStorm/IntelliJ, Flask, Photoshop, Lightroom, Adobe XD, Premiere Pro, Maya

WORK EXPERIENCE

Adobe | Software Engineering Intern   May 2017-August 2017
- Developed a crucial onboarding feature by implementing RESTful APIs and designing custom web components in PHP and AngularJS that allows Adobe Ad Cloud clients to optimize on various metrics
- Created multiple components including an AngularJS tooltip and description length counter in PHP
- Refactored much of the Kohana PHP Framework code to become testable for PHPUnit
- Fixed many bugs and created various Jasmine Unit tests for my own and existing controllers and services.

Mobile Developers of Berkeley | Machine Learning App Lead   August 2015-Present
- Currently researching classification and generative models for an accent conversion app in Pytorch
- Generated over $35k of revenue for fully designing and researching hi-fi designs in Adobe XD for multiple UI/UX contracts
- Lead a team to build open-source libraries for developers that easily add SQLite databases and Material Design animations to their apps
- Developed and launched two apps on the Android Play Store called Qlic and Concentraid

Rockwell Collins | Undergraduate Engineering Intern   May 2016-August 2016
- Researched a potential alternative method for programming Field Programmable Gate Arrays (FPGA) using C/C++ with high-level synthesis
- Tested more efficient algorithms for sparse signal processing performance on a Xilinx FPGA development board versus a CPU alone

PROJECTS

Accent Classification and Conversion App   Python, Dart, PyTorch, NLP, Android, iOS
- Utilizing an encoder-decoder machine learning model which segments an audio's MFCC into individual phonemes and uses convolutions to generate speaker embeddings like word embeddings in word2vec
- Creating a cross-platform app for model using Flutter mobile framework in Dart

dermio (Skin Disease Classification)   Tensorflow.js, Python, CNN, Javascript, HTML, CSS
- Developed a web app using the Tensorflow Javascript library to classify various skin diseases using the device webcam based on a fine-tuned MobileNetV2 model which achieves 48.9% accuracy on 198 classes

3rd Down Conversion Predictor   Python, Colab, Tensorflow
- Uses logistic regression with PCA which achieves test accuracy of 62.3% to predict NFL conversions

WireFlo | Won Capital One Prize at CalHacks 2016   Python, Flask, HTML, CSS, Captial One API
- Developed a web app in Flask enabling users to transfer money internationally cheaper than market value by cutting transactions fees using Capital-One's API and handled HTTP requests in Python

Qlic   Android, Java, Nearby API
- Developed an Android app that connects with nearby devices to share contact information instantly

EaSQLite   Java, SQL
- Designed an open-source Android library to act as a SQLite database abstraction layer