Michael Kim

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https://mhk150230.github.io/Michael-Kim-Bio/

EDUCATION

University of California, Los Angeles Los Angeles, CA

M.S: Electrical and Computer Engineering (Expected Graduation: Fall 2020) 2019-Current

- Area of Focus: Embedded Systems and Circuits Overall GPA: 3.80

University of Texas at Dallas Richardson, TX

Undergraduate: Biomedical Engineering (Fall 2015 – Spring 2019) Major GPA: 3.83

- Recipient of AES (tuition-free education); Dean's List

Skills: C, C++, Energia, Arduino, MATLAB, Java, Python; Electrical Circuitry (soldering, PCB, etc.); Microsoft software; CAD programs (SolidWorks); Verilog; HTML/CSS; Android Studios; Machine Learning (TensorFlow/TensorFlowLite)

Relevant Courses: Human Computer Interaction, Embedded Systems, Computer Science 1 & 2, Digital Circuits, Advanced Computation for Engineers, Signals & Systems, Components & System Design, Feedback Systems, Electric/Electronic Circuits, Large-Scale Data Mining, Digital Image Processing, Security & Privacy for IoT, Cyber-Physical Systems, Matrix Analysis for Eng., Computational Robotics

WORK EXPERIENCE

Marvell Santa Clara, CA

Hardware/Software IC Validation Engineer June 2020 – Current

- Validation of functionality of the Ethernet PHY API via comprehensive test cases; Created a Python testbench model and updated a PyQt GUI for interaction with the Ethernet PHY; Handles multiple test cases and provides visual feedback for results from inputs

Texas Scottish Rite Hospital for Children Richardson, TX

Biomedical Engineer August 2018 – June 2019

- Created a prototype of a mobile playground sensor to monitor the activity of children for recovery and research purposes; UWB-based real-time processing; Matlab post-processing GUI and Arduino-based mobile and real-time data-loggers

University of California, Los Angeles Los Angeles, CA

Teaching Assistant for Mathematics for Life Scientists December 2019 – June 2020

- Assist in the delivery of a Mathematics course at UCLA such as leading discussions, developing course materials, preparing exams, and working closely with the professor to create a lesson plan

PROJECTS:

University of California, Los Angeles Los Angeles, CA

EMG-based Virtual Keyboard with Machine Learning September 2019 – December 2019

- Developed an EMG-based application to recognize hand and finger gestures, allowing for a wireless, touchless experience to enter text and control personal devices and IoT; ANN with sigmoid activation and softmax

Image-Classification App for Nutritional Contents of Food September 2019 - December 2019

- Phone application with compressed network (InceptionNet) to identify elements in a food pic and output calories, protein, etc. of a meal; TensorFlowLite with Android Studios application; the application supplements image input with user's dietary restrictions to create a personalized output with potentially hazardous ingredients the meal might pose to the user

Classification Analysis of Textual Data: Large Scale Data Mining September 2019 - December 2019

- Training and testing of multiple classifiers with different parameters to determine best model for classification of textual data; Naïve Bayes, Logistic Regression, SVM (One vs One; One vs Rest)