Tin Thurein

CONTACT

Website: tthurein.github.io
Email: tthurein@ucsc.edu
Phone: (415)-699-1146

EDUCATION

***Bachelor of Science,* Electrical Engineering** **September 2015-June 2017**
University of California, Santa Cruz
Concentration: Electronics/ Optoelectronics
3.50 Major GPA
Graduated with Honors in Major

***Associate of Science* & Engineering** **August 2012-May 2015**
City College of San Francisco, San Francisco

COMPUTER SKILLS

Software Engineering: C, C++, Python, Java, JavaScript, MIPS Assembly, Verilog, HTML.
Computer Engineering: Logic Design, Computer Architecture, Verilog, FPGA, DSP, Communication.
Mechanical/ Electrical Engineering: Analog/Power Electronics, Optical Communication, Analog & Digital Communication, Microcontroller System Design and Interfacing, Material Properties, Sensor Design, Filter Design, Electronic CAD, PCB, Circuit Simulation.
Software: Linux/UNIX, MATLAB, SOLIDWORKS, Fusion 360, Allegro PCB Design, Cadence Suite, PSPICE, Eagle CAD, National Instrument Circuit Suite, Xilinx, PSoC IDE, WireShark, p5.js, processing IDE.
Applied Mathematics: Discrete Logic, Discrete Mathematics, Linear Algebra Differential Equations, Vector Calculus, Machine Learning, Statistical Reasoning.

Projects

Senior Capstone Project **January 2017-June 2017**

- I teamed up with 3 other students to design an IoT Supervisory Control and Data Acquisition (SCADA) system for a local Water reservoir, which is currently installed and beta tested at Ridge Mutual Water site.

- Our current implementation provides Real-Time monitoring of water meters, tank levels, pump status reading, along with energy readings via the web interface. It also provides a secure and remote control to an authorized user, via the web interface.

- Future development includes implementing machine learning algorithm for better energy conservation, anomaly detection, big data analysis, and adding additional sensors such as chlorine/ chloramine sensor.

AM/FM receiver **January 2015-May 2015**

- I assisted with the design of FM receiver, where I helped developing multiple stages of FM receiver such as preselector, 2 stage mixer (for converting from RF to IF(10.7MHz), then IF to much narrower 455KHz), and demodulator stage using PLL.

- I also designed AM receiver circuit consisting of an envelope detector with a low pass filter and helped with prototyping.

Audio Amplifier   June 2014-December 2014

- I teamed with 2 peers on designing and prototyping an audio amplifier, which has a low SNR, with adjustable volume and gain.
- Prior to prototyping, I simulated in Multisim to check DC voltages, and currents, ensuring our design works properly. I also performed a frequency sweep in Multisim, to get an approximate voltage gain.
- I also helped with routing PCB layout and prototyping.

Adjustable power supply   June 2014-September 2014

- I collaborated with 2 peers to design a variable power supply, which has an output voltage ranging from 0 to 20 Volts, and current is adjustable up to 1 Amp.
- I helped to design, simulate and prototype the power supply circuit.

EXTRA-CURRICULAR ACTIVITIES

-**Lighting Technician at Burmese Community Events:** Performed under senior technicians to implement lighting at Burmese community fund-raising live media events and assisted in creating lighting effects.

-**Autonomous Self-Driving Car Simulation:** Implemented Q-Learning (reinforcement unsupervised learning) in a 2-D simulated environment using Theano as backend, with Keras, Pygame, and Pymunk for the physics and 2D game dependencies.

EXPERIENCE

Farmers Sales Producer   July 2015-November 2016
Sandra Htwe Agency, San Jose, CA

- Performed administrative tasks, such as handling policy renewals and maintaining records.
- Evaluated individual customer's needs and proposed plans to meet their criteria.
- Provided customer services, such as claims, quoting rates and follow-ups.

Front Desk Receptionist   March 2014-July 2015
City College of San Francisco, Extended Opportunity and Serivices

- Performed database management, data entry, and word processing.
- Maintained office schedule for counselors.
- Learned to operate new office technology.

Math & English Tutor   June 2012-June 2013

- Held tutoring sessions for 12th, 11th, 6th and 5th graders.
- Assisted with homework problems, and reviewed class materials.
- Monitored student performance through weekly short quizzes.

LINKS

LinkedIn: http://linkedin.com/in/tinthurein
GitHub: https://github.com/tthurein
Personal website: https://tthurein.github.io