Tin Thurein

CONTACT

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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

- Wide breadth of courses in Physics, Mathematics, Computer Science, Electrical, Computer and Optical Engineering, with a graduate course in Optical Electronics.

***Associate of Science &* Engineering** **August 2012-May 2015**
City College of San Francisco
-Dean's Honor List

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, Autodesk Inventor, 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.

WORK EXPERIENCE

Product Development: R&D Engineering Tech. **October 2017-Current**
Nordson March, Concord, CA

- Provide technical assistance for developing advanced plasma cleaning systems that are being used for surface treatment such as Wafer-level processing, Plasma deposition, Ion etching, Semiconductors manufacturing and Surface adhesion, as well as medical applications.
- Test new vacuum chamber and electrode designs, configure high power RF generators along with RF matching networks and process recipe configurations for various plasma applications and chemical depositions.
- Optimize RF power delivery systems, and RF matching networks for optimum plasma treatment, high uniformity and high throughput.
- Perform Factory Acceptance Test during the customers' buy-offs as well as performing QA and QC procedures and training customers to familiarize with the software.
- Comply with engineering documentation standards, and system specifications to meet customers' needs.

Entry Level Optician **July 2017-Ocotber 2017**
Daly City Optometry, Daly City, CA

- Evaluated prescriptions in conjunction with clients' vocational and avocational visual requirements.
- Performed administrative duties such as tracking inventory and sales, submitting patient insurance information, and performing bookkeeping.
- Measured clients' bridge and eye size, temple length, vertex distance, pupillary distance, and optical centers of eyes, using measuring devices.

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.
- Assisted in developing more efficient and effective ways of file keeping system, and record keeping system.

Math & English Tutor **June 2012-June 2013**

- Held tutoring sessions for 12th, 11th, 6th and 5th graders, providing feedback using positive reinforcement techniques to motivate and facilitate student's academic improvement.
- Assisted with homework problems, and reviewed class materials with students by means of working on solutions to problems, worksheets and assignments.
- Monitored student performance through weekly quizzes and activities.

PROJECTS

Senior Capstone Project (1st Place Winner at Santa Cruz IDEA Hub) **January 2017-June 2017**

- I teamed up with 3 other students to design a scalable 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 and capable of alerting in case of leakage or overflow. 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 linear 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 learning) in a 2-D simulated environment using Theano as backend, with Keras, Pygame, and Pymunk for the physics and 2D game dependencies.