Tin Thurein

Electrical Engineer · Hardware Enthusiast · EIT

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Summary

Dedicated, professional, and highly motivated electrical engineer who possesses hands-on experience, and product development experience, with excellent communication and time management skills. Proficient in a wide variety of engineering software. Excellent team player who strives to go above and beyond to deliver a project that meets and exceeds expectations and thrives on challenging tasks.

Education

University of California, Santa Cruz   *Santa Cruz, CA*

B.S. in Electrical Engineering   *June 2017*

- Concentration in Electronics/ Optoelectronics
- Graduated with Honors in Major; Major GPA: 3.50
- **Relevant Coursework**: Digital Signal Processing, Optical Electronics, Logic Design, Analog Electronics, IoT, Computer Networks, Signals and Systems
- **Project Area**: Signal processing and interfacing, IoT, SCADA, ZigBee Mesh network, 3G Communication

City College of San Francisco   *San Francisco, CA*

Associate of Science & Engineering   *May 2015*

- Dean's Honor List

Work Experience

Nordson March   *Concord, CA*

Engineering Technician   *October 2017 - PRESENT*

- Provide technical assistantance for developing advanced plasma cleaning systems.
- Develop process recipe configurations for various plasma applications.
- Perform electircal equipment installation, testing and failure investigation.
- Improve process cycle time by applying statistical analysis on collected etch and surface activation data, optimizing RF power delivery systems, and RF matching networks for highest plasma treatment, uniformity, and throughput.
- Perform FAT (Factory Acceptance Test) during the customers' buy-offs, train customers to familiarize with the *MARCH HMI* software as well as perform QA and QC procedures on product shipments.

Projects

WaterBug: Automated Water Monitoring System with Secure Control

- An IoT Supervisory Control and Data Acquisition (SCADA) system with the capability of continuous monitoring reservoirs with secure remote access to control the pumps.

Signal Processing in MATLAB

- Frequency Domain Adaptive Filter in MATLAB for echo cancellation of real and synthetic signals.

Network Router with Firewall

- A custom network topology with firewall in *Mininet*, only allowing network traffic with ICMP packets while blocking untrusted hosts.

Reversi: Internet-connected two-player game with 16x32 RGB display matrix

- A two-player wifi connected game with the ability to play against computer.

Ball Catching game on FPGA

- Implemented in *Spartan 3E* FPGA development board with Display output via VGA port to the monitor, using keyboard arrow keys as an input.

AM/ FM Radio Receiver

- Superheterodyne FM receiver with pre-selector, 2-stage mixer and demodulator using Phased Lock Loop.
- AM receiver with envelope detector and audio amplifier.

Audio Amplifier With 20-20KHz Range, Low SNR

- An audio amplifier with a low SNR, adjustable volume and gain.

Adjustable Power Supply

- A switch mode, variable power supply with output voltage from 0 to 20 Volts, and adjustable current.

Skills

Programming	C, C++, MIPS Assembly, Verilog
Engineering	FPGA, Logic Design, DSP, Optical Communication, Analog & Digital Communication, PCB, Circuit Simulation, Material Properties, Mechanical design and assembly
Software	MATLAB, SolidWorks, Inventor, Allegro PCB Design, Cadence Suite, PSPICE, EAGLE CAD, National Instrument Circuit Suite, Xilinx, PSoC IDE
Languages	English, Burmese