

Zechariah Miller

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Education

University of the Pacific, Stockton, CA
Bachelor of Science, Engineering Physics

Dec 2019

RELEVANT CLASSES

Electrostatics; Electrodynamics; Thermal Physics; Modern Physics; Digital Signal Processing; Solid State Devices; Material Science; Electronic components; Dynamics of motion; Basic Chemistry; Digital Design theory; Circuit theory; Fluid Mechanics; Quantum Mechanics; Computational Physics; Statistics

Skills

Strong communication skills; Cooperative team player; Public Speaking

TOOLS: Drill press; Power drill; Screw gun; Table Saw; Hand tools Soldering gun; Heat gun; Multimeter;
LANGUAGES: C++; C#; MATLAB; Pspice; Python; French; LabVIEW; VHDL; Sheet Music; Fusion 360; AutoCAD

Experience

◇ HAAS Automation: Software QA Engineer

Nov '20- Ongoing

- Learned complex quickly with understanding to the whole software
- Reviewed software requirements before publishing
- Created utilities in C# to allow for better testing and G-code execution
- Scripted automated tests for an agile software release structure
- Manage Multiple Conflicting Deadlines
- Investigated user complaints, and tested new features with plan
- Coordinated cross department for design of new control system and parameter derivation

◇ Frito Lay: Supply Chain Leader

Apr '20- Nov '20

- Lead 30person team of direct reports and supervisory role to others for up to 12hr shift
- Created and implemented new role with 72% Decrease in CMS film waste and 196% decrease in Downtime of packaging machinery
- Managed Entire site unsupervised at a managerial capacity for over 800 employees in total
- Coordinate across multiple teams and departments in high pace environments to resolve conflict, downtime, and timetables
- Manage Multiple Deadlines
- Performed exit interviews, disciplinary meetings, and negotiated raises.

◇ Frito-Lay: Maintenance Intern

Summer 2019

- Created a comprehensive map of the compressed air system
- Designed a valve system to allow for isolation of various machines
- Coordinated efforts in a team environment
- Developed an event for 1800 people across an entire facility and departments

◇ Commuter Community Association: Vice President

2017-2019

- Excellent public speaking in outreach and meeting environments
- Meeting leadership and task delegation
- Coordinate between students and Staff

◇ Quality Sound: Integration intern

Summer 2018

- Developed AutoCAD skills and drafting
- Assembled and designed equipment housing
- Programmed and tested fire alarm control panels for Silent Knight and EST3
- Optimized equipment for field installation and implementation

- Performed speaker system tuning and biasing

- ◇ Event Entertainment: Guitar
Organization of Native Daughter of the Golden West Summer 2017
Provided ambient music for entire event duration; Acoustic style with finger style and chords; Accommodated own equipment
- ◇ Miracle Mile Books Spring 2016
Accompanied lead Guitarist in an electric setting; Demonstrated ability to improvise and thrive on little preparation between sets
- ◇ Stirm Construction: Apprentice summer 2014
Utilizing a table saw cut 2x6, 2x4, and 4x4; Utilized Hand tools, Screw gun, Power Drill, Slide Rule; Design and Calculation of Grate; Experience in gradients;

Projects

- ◇ Physics Thesis: Tunneling in Diodes March-Ongoing
Examining the process of reverse bias on Tunneling Diodes; Constructing a lab activity to derive the physical distance of the potential barrier; Providing background sufficient to describe the electrons not tunneling; Calculating the total number of electrons tunneling from measuring current
- ◇ Audio Loop Pedal February-Ongoing
Investigating current industry standards of pedals; Comprehensive parts list and cost analysis; Hybrid design of bottom up and top down; Developing gain structure architecture; Implement basic code of operation
- ◇ Fuzz Pedal Spring 2019
Designed and simulated an operational Fuzz Pedal; Worked in a team to implement design by creating circuit schematics and enclosure compliant in industry; Simulated frequency response, gain structure, and output. Cooperated in completing a comprehensive parts list and total cost; CNC cutting and design
- ◇ 3D Printer Plastic Compression Rating Fall 2017
Analyzed polymer structures related to plastics and performance; Operated compression testing equipment; Engaged in team meetings and testing; Improved better understanding of physical processes to team
- ◇ AC-DC Converter Design and analysis Fall 2017
Designed converter of 5V and 1mA by bottom-up design; Implemented 10% smoothing ripple; Examined power and cost; Demonstrated full comprehension of physical operation.
- ◇ Highway Drive Cycle Fuel Economy Analysis Summer 2017
Created a program to derive the fuel economy, recoverable braking, energy spent; Researched areas to optimize in performance of vehicles.
- ◇ Electrical Guitar Electronics Restructuring Summer 2017
Replace electronics with new hardware for added audio quality; Self-sufficient research of hardware and cost analysis; Modified hardware for better resolution and performance.

References-Professional

Devin Ramstead

Commuter Community Association

President of the Commuter Community Association

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Pacific Alumni

Graduate student at University of the Pacific

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Joan Stafko

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Secretary of Native Daughters of the Golden West

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References-Personal

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