Amir Motamed

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Summary

Results-oriented electrical engineering graduate with industry and design experience. Passionate about developing automated systems using exceptional technical knowledge and skills. Ready to face new challenges every day using proven analytical and communication skills.

Education

San Jose State University BS Electrical Engineering (GPA 3.65)

RWTH Aachen University, Germany Electrical Engineering

Work Experience

Varian Medical Systems (Siemens Healthineers) Final Test Technician

- Design and implement fully automated test fixture using microcontrollers, saving Varian ~\$150,000 annually and streamlining the tuning process
- Analyze and solve manufacturing stoppages by leveraging root-cause analysis
- Compose Manufacturing Instructions, Procedures, and Troubleshooting Wikis
- Tune, test, and troubleshoot linear accelerators and Radiotherapy machines
- Train and support new test engineers and technicians

Fry's Electronics

Computer Department & Operations Manager

- Managed a sales-driven Computer Department Team and store associates
- Grew sales across multiple stores by implementing a new training program
- Custom-built liquid-cooled workstations and mining systems (up to 12 GPUs)

Skills

Test Equipment:	Oscilloscope, Network Analyzer, Function Generator,
	Multimeter, Power Supply
Programming:	C, C++, Python, Java
Software:	LTSpice, MATLAB, Visual Studio, SolidWorks, SAP, PowerBi
Protocols:	I ² C, SPI, UART
Electrical:	12-120V wiring, ESD, 3-phase power and transformers
Covered Topics:	ADC, DAC, Switch Mode PSUs, Electric Machines

Projects - Portfolio Website

Automated Tank Setup (Senior Project) – <u>Project Website</u> – Video: <u>YouTube</u> or QR:

Designed and implemented an internal product for Varian. It automates their Phantom Tank, used to tune Radiotherapy machines. Varian is adopting this system and saves at least \$150,000 annually in labor alone. This project helps accelerate the delivery of Varian's machines while making them more precise.

- Features: Auto-level tank in radial and transverse planes, auto-drive tank to the specified height for each test, auto-fill to appropriate water level, auto drain
- Parts: High-Torque Stepper Motors, Switch Mode PSU, Relays, Accelerometers, Hydro- and Ultrasonic sensors, Transceivers for wireless communication between Arduinos
- Designed and manufactured sheet metal using SolidWorks, 3D-printed user panel and enclosures

Autonomous Robot Cleaner (Freshman Project) – Project Website

Designed and built an automated Robot Cleaner using MATLAB. It uses a gyroscope and multiple ultrasonic sensors to navigate through a room while picking up items. It can distinguish between walls and obstacles and avoids them accordingly.

02/2016 – 06/2018

Campbell, CA

05/2022 San Jose, CA

Palo Alto, CA

06/2018 - present