Iraj Shrotri - Process Engineer

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Education:

UC Riverside, Riverside, CA - B.S. Electrical Engineering Sept 2018 - June 2023
Specialization in Control, Robotics & Machine Intelligence

Technical Skills: C, C++, C#, MATLAB, Soldering, Java, Python, HTML & CSS ,Verilog, LTSpice, Assembly, Colab, Machine Learning (numpy, pandas, matplotlib), AutoCAD, Solidworks, SQL, JMP

Languages: English, Japanese, Marathi

Work Experience:

Process Engineer - Intel Fab 11X Lithography Stepper Engineer Oct 2023 - Present

- Maintained and optimized on Veeco AP-300 Lithography
- Utilized advanced optical systems to detect defects in high volume production
- Responsible for New Product Transfer from OR to NM Site for Canon and Veeco toolsets

Undergraduate Research Assistant - University of California at Riverside Sept 2022 - July 2023

- Conducted experiments and analyzed materials in the Zachariah Group Material Science Lab.
- Redesigned and optimized the material burn rate system, enhancing precision and efficiency
- Link to Website: https://mrzgroup.ucr.edu/

Projects:

Earth Rover - Senior Design Project

- Developed a versatile radio-controlled car for real-time soil sampling and data collection.
- Implemented manual and autonomous navigation & object detection using a 2D LiDAR and 2MP camera.
- Link to Presentation: http://bit.ly/earth-rover-presentation

Updating Counter Flow Lab Setup

- Updated an existing material burn rate measurement rig with modern components.
- Utilized a high-quality ThorLabs micro stepper and controller powered by C# program, along with a photoresistor and laser setup controlled by Arduino using Visual Studio
- Link to Presentation: https://bit.ly/counter-flow-setup

Machine Learning Test Data Imaging Construction

- Generated training data for a machine learning program to identify particles in molten boron.
- Created binarized images to maximize precision of the machine learning model using MATLAB
- Link to Demo: https://bit.ly/image-construction-demo

Awards:

Inova'R Award - ICorps: $3,000 grant for prototyping. December 2020 - March 2021

- Designed a custom Jukebox compatible with various vinyl sizes.
- Presented weekly with progressive improvements and customer research.