

# Chinmay Rozekar

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## OBJECTIVE

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Motivated to bring my expertise in electronic circuit design and system-level testing, coupled with a strong foundation in Python and cross-functional team leadership, to ASML as a Senior Electronics Design Engineer, aiming to contribute to the innovation and efficiency of lithography systems for semiconductor manufacturing.

## PROFESSIONAL SUMMARY

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- Versatile engineer with 4+ years in Silicon Validation, adept in both Pre-Silicon and Post-Silicon environments, specializing in system-level testing and product quality enhancement.
- Committed to leveraging technical expertise for reducing operational costs and enhancing product specifications.
- Excels in cross-functional team collaboration, test automation with Python, C/C++, and Java, and innovative problem-solving.

## EXPERIENCE

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### Product Development Engineer

July 2020 – Present

*Advanced Micro Devices (AMD)*

*Austin, TX*

#### *System Level Testing (SLT)*

- Led system-level testing for AMD's Ryzen 8040 'Hawkpoint' series, Accelerated Processing Units (APUs), ensuring adherence to customer environment standards.
- Spearheaded Test Time Reduction (TTR), eliminated redundant tests, for reducing operational costs through DPPM Yield Analysis in Production.
- Experienced in monitoring production yield and debugging/root cause analysis of high-Pareto items in production fallout.
- Experienced in performing SoC Characterization for Product Definition by setting Test-Program flows on volume testing.
- Maintained the test program codebase repository using Atlassian BitBucket, overseeing the development and release of test content throughout the product roadmap.
- Collaborated with Diagnostic, BIOS, and Design teams to enhance CPU performance features, contributing to product specification improvements.
- Experienced in Customer RMA Debug issues through secure fuse unlocking during Field Return Analysis (FRA).
- Established and managed an in-house server farm and APU client board setup, ensuring robust testing environments and streamlining development.

### Product Engineering Co-Op

Jan. 2019 – Dec.2019

*Advanced Micro Devices (AMD)*

*Austin, TX*

- Designed and automated test programs for Human Body Model Testing, reducing Engineering time by 90%.
- Reverse-engineered and redesigned a 20-year-old robotic graphical user interface in Python, reducing engineering time by 95%.
- Conducted stress tests on AMD products according to industry standards, qualifying products for production.
- Performed scheduled calibration and waveform verification for preventive maintenance as per ISO 9000 standards
- Conducted Design of Experiments on AMD products for Capacitive Modeling to optimize protection circuitry

### Graduate Research Assistant

Jan 2020 – May 2020

*Rochester Institute of technology*

*Rochester, NY*

- Developed a process flow for thin film IC development, covering various fabrication steps
- Designed and simulated NMOS devices to determine sub-threshold voltages and model leakage current
- Conducted electrical device characterization to optimize gate oxide thickness on NMOS devices.

## TECHNICAL SKILLS

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**Process Engineering:** Thin Films, PVD, CVD, Sputtering, Dry Etch, Metrology, Characterization

**Languages:** Java, Python, BASH, C/C++, SQL, HTML/CSS, XML, Markdown, MATLAB, Perl

**Libraries:** Matplotlib, Pandas, Numpy, Scikit-learn, Selenium

**Developer Tools:** Git, Jira, Confluence, Linux, CI/CD, IntelliJ Idea, VS Code, PyCharm, Eclipse, Jupyter, Anaconda, JSON, Notepad++, LaTeX

**Protocols:** JTAG, PCIE, DFT, Boundry SCAN, ATPG

**Simulation:** KiCAD, SolidWorks, COMSOL Multiphysics, Silvaco-Athena, Pyxis(Mentor Graphics)

**Data Analysis:** Excel, Power-BI, JMP, Python

## PROJECTS

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### **Review of Thin Film Technologies for Flexible Electronics**

Jan 2020 – May. 2020

- Designed a simulation model for growing a 1  $\mu\text{m}$  layer of flexible crystalline Si substrate on top of Tungsten metal layer using SOI method in Silvaco Athena.

### **A Thermally actuated four-legged MEMS based Silicon Micro-robot**

May 2018 – Dec. 2018

- Designed and fabricated a thermally actuated MEMS based Silicon micro-robot. Modeled design in CAD / Solidworks and Heat Transfer using COMSOL multi-physics FEA.

## EDUCATION

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### **Rochester Institute of Technology**

Rochester, NY

*Master of Science, Electrical Engineering*

*Aug. 2017 – May 2020*

### **Bharati Vidyapeeth University**

Pune, India

*Bachelor of Technology, Electrical Engineering*

*Aug. 2012 – June 2016*