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PRABHASA JAVVAJI

Portfolio: [Electrical & Microsystems Engineer](#)

Multifaceted Engineer specializing in AI-enabled development, advanced semiconductor processes and data driven engineering solutions. Demonstrated capability in advanced materials research and reliability analysis using a range of microstructural, thermal and failure-analysis techniques, alongside AI-based technology scouting to support early-stage semiconductor development. Skilled in developing automated data solutions, dashboards and knowledge systems, as well as leading ISO-compliant EMC testing activities for automotive applications. Known for rapidly adapting to complex technical environments, delivering clear insights, reliable results and efficient workflows. Brings an analytical mindset and cross-functional approach to drive impactful, high-quality engineering outcomes.

Employment History:

Infineon Technologies – Regensburg, Germany

AI Engineer (Working Student):

(October 2025 – Present)

- Supporting pre-development and early research phases by conducting AI-driven technology scouting for backend development, leveraging tools such as MapEGY, Findest and other analytical platforms.
- Performing systematic evaluation of emerging technologies, automation potentials and innovation trends to identify high-value development opportunities in early-stage semiconductor projects.

Research Engineer (Master Thesis):

(March 2025 – September 2025)

- Conducted research on Transient Liquid Phase Sintering to develop stable die-attach interconnections on bare copper, optimizing intermetallic phase formation in silver and alloy based sintering materials.
- Performed failure analysis using SEM, SAM, EDX and DSC to evaluate bond reliability and material behavior, contributing to advancements in electronics packaging.
- Experience in clean room and hands-on prototype buildup.

Quality Engineer (Working Student):

(February 2024 – January 2025)

- Developed dashboards using Tableau for Deviation Decision Help data for the Backend Semiconductor Production floor.
- Programmed solutions using Python and VBA to streamline and automate the processing of recurring Excel and PDF datasets.
- Built and managed Confluence knowledge repositories for Backend Preassembly production.
- Expertise in Backend Quality standards and analysis, including FMEA and MRB Process.

Bosch Global Software Technologies– Bengaluru, India

EMC Test Lead:

(September 2020 – February 2023)

- Led a team in executing rigorous EMC testing (BCI), ensuring compliance with ISO 17025, CISPR 25, ISO 11452-1/2/4 while optimizing coverage, efficiency and resource allocation to meet KPIs and customer demands.
- Ensured accuracy in test documentation and reporting, enabling data-driven decisions and high client satisfaction.
- Provided technical expertise to validate measurements and results, supporting other test leads in cross-project verification, and ensured seamless collaboration to maintain high-quality deliverables.

EMC Test Engineer:

(September 2019 – September 2020)

- Performed EMC/Electrical testing – Bulk Current Injection, Conducted/Radiated Emissions, Radiated Immunity (Antenna Method), and ESD for Automotive Chassis and Active Safety Systems.
- Ensured full compliance with ISO 17025 standards while testing for multiple OEMs.

Education:

Master of Technology

(March 2023 – Present)

Electrical and Microsystems Engineering, Ostbayerische Technische Hochschule, Germany.

Skills: KiCAD, Advanced Packaging of Semiconductors, Optoelectronics, Handling of Electrical instruments.

Project Thesis: Viscosity and Electrical measurements of MR Fluids and MR Bos

(October 2023 – February 2024)

- Funded by DFG, the study addresses industry needs, where I have Investigated viscosity properties of newly developed Boron-based MR fluids using multiple viscometers.

Bachelor of Technology

(July 2015 – May 2019)

Electrical and Electronics Engineering, Amrita School of Engineering - India

Skills: C Language, AUTOCAD, HTML, LTSpice, LabVIEW, Raspberry Pi, Arduino, Power Electronics, Analog and Digital Systems, Control Systems.

Bachelor Thesis: On board Charger for Electric Vehicle (September 2018 – February 2019)

- Designed an on-board Level-1 EV charger prototype.

Technical Competencies :

- Programming and Automation (Python, VBA, C language, HTML, Git)
- AI & Data Analytics (Tableau, Confluence and AI scouting tools like Mapegy, Findest)
- Simulation, Design Tools (LTSpice, KiCAD, AUTOCAD, MATLAB)
- Semiconductor, Material and Clean Room skills (TLPs, Die Attach Interconnection, Optoelectronics, SEM, SAM, EDX, DSC, Viscosity and Electrical Measurements)
- EMC Testing (Conducted and Radiated Immunity and Emissions, ESD)
- ISO 17025, CISPR 25, ISO 11452-1/2/4
- Technical Documentation system
- Electrical and Electronics Testing (Power Electronics, Analog and Digital systems, Raspberry Pi, Arduino)
- Quality, Reliability and Process Engineering (Failure Analysis, FMEA, MRB, SPC)
- Research, Innovation and Technology Scouting (AI-Based Technology Scouting, Innovation and Trend Analysis, Literature and Patent Review, Result Validation and Experiment Design)
- MS Office (Excel, PowerPoint, Word)
- Team Leadership and Mentoring
- Cross-Functional Collaboration
- Project Planning & KPI Tracking
- Technical Reporting & Documentation
- Problem Solving & Analytical Thinking

Languages :

- Mother Tongue: Telugu
- Proficient: English (C2)
- Intermediate : German (A2)

Hobbies :

- Dancing
- Cooking
- Travelling
- Photography
- Painting
- Space optimization & decluttering