

Rishav Kumar Dokania

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EDUCATION

Texas A&M University

College Station, TX

MS in Computer Science - GPA: 4/4

Aug. 2022 – 2023

- **Courses:** Operating System, Software Engineering, Cloud Computing, AI Robotics

Delhi Technological University

New Delhi, India

B.Tech in Electrical & Electronics Engineering - GPA: 3.6

Aug. 2015 – May 2019

- **Technical VP - Society of Robotics** — **Courses:** Data Structure & Algo, Programming C++

TECHNICAL SKILLS

Java: OOP, JUnit, Design Patterns, MVC, Gradle, Functional Prog., OpenCV — **Python:** PyTest, Poetry, Black, Pandas, PEP8 — **C, C++** — Linux, Data Structure — **JavaScript:** Node/ReactJS, RESTApis, HTML, CSS — **Git:** Bitbucket, Github Actions, Jenkins — **MySQL,** PostgreSQL, MongoDB — **AWS,** Docker, Heroku — Ruby On Rails

EXPERIENCE

Cirrus Logic

May 2023 – Aug 2023

Software Developer Intern | Java, Gradle, Junit Test

Austin, TX

- Designed complex Java App reusable components using functional, asynch programming saved 28+ hrs/month.
- Architected 4 generators into 1 object oriented modular, extensible package for automated XML, YAML, JSON content generation over 30+ commits to reduce turn around time by 25%.
- Setup complex Gradle projects, review peer code, incorporate 100% PR feedback, use established code standards.
- Built clean parametric unit, robot test on Junit5 framework with mockito for 100% code coverage.

Texas Instruments

July 2019 – July 2022

Software/Product Engineer | Python, Java, Design Patterns, CI CD, Git

Bangalore, India

- Lead object oriented software development to detect pre-manufacturing quality defects in Integrated Circuits. Impact of 1 year, \$100M+ business. 3rd highest contributor of Patent Disclosure among 8.
- Orchestrated scalable python infrastructure from scratch using Poetry, Pytest, CLI, Code Style, SVN and Jenkins CI/CD to streamline DevOps flow by 35%.
- Developed modular self-documented python architecture for test bench generation. Composed design patterns, automated 150+ test setups to reduce 30+ weeks churn time across 15+ Projects.
- Devised Java OpenCV algorithm and Junit tests framework for device orientation, pick and navigation for Robotic Device testing of 5000+ devices to pull in customer delivery by 3 weeks and co-authored paper.
- Promoted to Senior, collaborated with Fellows to upgrade quality of 25M+ chips/year using 5-Why, 8D methods.

ACADEMIC & PROJECTS

Software Architect | Python, ROS

Jan 2023 – May 2023

- Architected AI Rescue Robot class diagram, project structure over 2K+ lines of code for 65% more readability.
- Modularized 5 ML Human Interaction behaviors with Observer Design Pattern for 35% better extensibility.
- Designed multi-threading algorithm for parallel image & audio processing to reduce latency by 95%, below 0.1s.

Web Developer | JavaScript Node/ReactJS, AWS, MySQL

August 2022 – Dec 2022

- Developed web application with 10+ reusable and dynamic components using ReactJS, Hooks with RestAPIs using Agile CI/CD in AWS to improve operation efficiency of Aggie Rotaract club's 1000+ members by 30%.
- Designed data diagram, schema, CRUD and filters for 6 tables in MySQL for 20% better Database organization.
- Instantiated AWS EC2 server with IAM Roles, Security Groups, RDS for secure & 100% scalable infrastructure.

ACHIEVEMENTS

1. **Patent Disclosure:** Software to Simulate and Visualize all Datasheet Parameters Over the Lifetime of the Product.
2. **Texas Instruments Global Recognition Award - 4 times :** Software to detect Quality Defect, De-risk and pull in for AWS \$100M+ project timeline, Improved Qual Board Design, Released LM74700DDF in record 3.5 months.
3. **Publications - 3 Papers:** Poster Presentation IC Quality failures (April 2022); Qualification HW Design for contamination issue (Nov. 2022); Co-author, Robotic Handler for Qualification Test Automation (April 2020).