Rakshaa Viswanathan

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EDUCATION

NIT TRICHY
B.Tech – Electrical & Electronics Engineering
2018 – 2022 | Tiruchirappalli
Minor in Computer Science & Engineering
CGPA: 8.51 / 10 (Distinction)

SKILLS

PROGRAMMING
C++ • Java • Python
C# • .NET
Golang • JavaScript
Node.js • React.js
MongoDB • SQL • KQL

SYSTEMS & CLOUD
Linux (Kernel, SysAdmin) • Azure
Distributed Systems • Microservices
APIs (REST, GraphQL)
Observability (Kusto)
CI/CD Pipelines (Azure DevOps)

OTHER
IoT • Machine Learning & Deep Learning
Leadership & Mentoring
Technical Writing (IEEE, blogs)

CERTIFICATIONS

Algorithmic Toolbox – UC San Diego
Deep Learning Specialization – DeepLearning.AI
Machine Learning – Stanford Online

PUBLICATIONS

Low Voltage DC Mini-grid for Isolated Healthcare Centres – IEEE (2021)

AWARDS

Azure SPT Spot Award – for platform reliability
yuHacks – Bonus Prize (Cloud category)
Wolfram Award – Algorithm innovation
Hack Solstice – Popular Choice
Quantahacks – echoAR Winner (Top 1%)

EXPERIENCE

MICROSOFT | Software Engineer
Jun 2022 – Present | Bengaluru, India

Azure Sovereign Platform Apr 2024 – Present

- Developed the **Azure Dependency Service Graph** with **GraphQL, Cosmos DB, and Kusto**, enabling real-time dependency analysis across **10k+ Azure services**. Reduced incident resolution time by **30%**.
- Led all the engineering for **API upgrades in CloudSprout** (schema versioning, caching, performance optimization), increasing adoption by **40%** and reducing developer onboarding time by **25%**.
- Designed an **event-driven configuration pipeline** with **Apache Kafka and AzPubSub**, lowering propagation latency by **70%** across sovereign regions and scaling to **millions of events daily**.
- Created the **CloudSprout AI Assistant**, supporting onboarding for **10k+ configurations and services** with automated query handling.

Azure Linux Jun 2022 – Apr 2024

- Delivered critical **security, performance, and reliability** improvements for Azure Linux, deployed to **100k+ servers** powering Azure cloud and edge.
- Built automated validation and release pipelines in **Linux, Python, React, JavaScript**, cutting regressions by **35%** and accelerating deployments by **20%**.

MICROSOFT | Software Engineering Intern
Jun 2021 – Jul 2021 | Bengaluru, India

- Designed a **distributed compilation system** for CBL-Mariner by parallelizing build pipelines, reducing build times by **33%**.
- Enhanced build farm orchestration using **Golang & Linux virtualization**, boosting throughput and improving resilience in CI/CD workflows.

NIT TRICHY | Research Intern
Dec 2019 – Nov 2020

- Proposed and implemented a **low-voltage DC Pico-grid** for rural healthcare centres in Tamil Nadu, improving power reliability by **50%**.
- Conducted comprehensive **MATLAB & Simulink** simulations; results published in IEEE and cited in microgrid research.

LEADERSHIP & PROJECTS

Community Leadership

- Founded **Superposition Chennai**, scaling to **300+ members** with coding workshops, peer learning, and structured mentorship.
- Directed **Kurinji Hacks**, Chennai's largest hackathon for gender minorities with **500+ participants** and a **95% project completion rate**.
- Mentored and judged at **50+ global hackathons** (MLH, Girls in Tech), supporting the growth of **1,500+ student developers** from underrepresented groups.

Select Technical Projects

- **Safe Space Bot** – AI-powered chatbot for harassment detection (**Python + NLP**); adopted at multiple hackathons with **200+ active users**.
- **Woomb** – Full-stack women's health platform (**React, Node.js, MongoDB**); reached **1k+ demo users** in university and hackathon showcases.