

# Srinivas Charan Madu

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## EDUCATION

### UNIVERSITY OF WASHINGTON, SEATTLE

MS in Information Management - Data Science

Seattle, USA

Expected Graduation: 1st August 2024

### INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY, BANGALORE

Integrated MTech in Computer Science and Engineering

Bangalore, India

## WORK EXPERIENCE

### MICROSOFT

Software Engineer

Hyderabad, India

Aug 2020 – Aug 2023

- Worked on Azure Backup, a highly scalable tier-0 Azure service protecting cloud computing resources and on-premise workloads, developing features and improving workflows across its microservices using .NET and C#.
- Designed and developed Multi-user authorization feature for Azure Backup to protect 8 critical scenarios, safeguarding over 2500 backup vaults across nearly 500 subscriptions against ransomware attacks.
- Implemented Preflight validation for the deployment templates of 4 Azure Backup resources, and reduced failure rate of their deployment due to incorrect input by 92%.
- Optimized the Configure backup operation for IaaS VMs with Recovery Services Vault by identifying and resolving inter-service sync issues, and reduced the failure rate by 82%.
- Enhanced the efficiency of the Rollover process of authentication certificates of workload containers and automated the cleanup of dangling certificates, eliminating 3 days of effort of the Ops team to manually rotate over 100 certificates every month.

### IIITB INNOVATION CENTRE

Product Development Intern

Bangalore, India

Jan 2020 - Jun 2020

- Conducted market research and customer discovery process through 75 interviews and constructed a business model for Raydius - a map based digital platform to discover and share the happenings of a neighborhood.
- Developed an MVP for Raydius, a cross-platform application using React Native, NoSQL and Google Maps API.
- Validated the customer adoption for selected localities in Bangalore and identified 4 types of events as primary verticals, which helped the later teams to select those verticals as focus to enhance the application.

## SKILLS

**Programming/Tools:** C#, C++, Java, Python, R, JavaScript, Jupyter, PyCharm, Git, Postman

**Frameworks/Libraries:** .NET, OpenGL, D3.js, React Native, Pandas, NumPy, Tensorflow, PyTorch, Matplotlib

**Concepts/Technologies:** Distributed Systems, Machine Learning, Azure, AWS, Docker, SQL, Azure Cosmos NoSQL DB

## PROJECTS

### Agent based modeling of Drug Resistant Diseases

- Developed an Agent-Based model to simulate the onset of drug resistance in tuberculosis bacteria and subsequent spread of the disease in a constrained environment.
- Implemented the agent model and visualization using Python, Java, and Repast City framework, and produced predictions for simulations of 100 human agents in 2000 years within 6.5 hours of real-life run-time.

### Telecommunication Spectrum Data Visualization

- Integrated run-time D3.js based visualizations of the dense Indian telecom spectrum data to a website.
- Built a continuous deployment pipeline (CDP) using Jenkins, Docker, ELK, and AWS to enable team collaboration for the development of the website.

## LEADERSHIP AND ACHIEVEMENTS

- **Institute Gold Medal** for the All-Rounder of the graduating batch of 2020, awarded by IIITB, for exceptional all-round activities like academics, community, and organization.
- **Entrepreneurial Lead** at GDC INCUBATE Cohort 10 (Bootcamp program for developing business ideas by IIT Madras) for 5 months, representing the team Raydius to develop the business model and customer validation of the product design by collaborating with industry veterans.
- **Director of Aikyam** (Social Service Community of IIITB) for two years. Volunteered and led activities of the clublike fundraisers, donation drives, blood donation camps and orphanage visits.
- **Elected President of the Student Activity Council** at IIITB, from 2016 to 2017. Coordinated with students and college administration relating to different student activities and events all around the year.