

# Srinivas Charan Madu

GitHub: [github.com/Charan000](https://github.com/Charan000)  
LinkedIn: [linkedin.com/in/charan999](https://www.linkedin.com/in/charan999)

Email: [srinivascharanmadu@gmail.com](mailto:srinivascharanmadu@gmail.com)  
Mobile: +91 8179373590

## EDUCATION

- University of Washington - Seattle**  
Master of Science in Information Management - Data Science
- Seattle, WA, USA | Sept 2023 – Dec 2024
- International Institute of Information Technology - Bangalore**  
Integrated Master of Technology in Computer Science and Engineering
- Bangalore, KA, India | Aug 2015 - July 2020

## WORK EXPERIENCE

- MICROSOFT** | Azure Backup | Software Engineer
- Hyderabad, TS, India | Aug 2020 – Aug 2023
- Designed and developed Multi-user authorization feature for Azure cloud backup vaults to protect 8 critical scenarios, safeguarding over 2000 vaults across nearly 400 subscriptions against ransomware attacks and accidental insider actions.
  - Implemented Preflight validation for Azure Backup deployment templates of 4 resources, reducing the failure rate of their deployment due to incorrect input by 85%.
  - Optimized the Configure backup operation for IaaS VMs with Azure Recovery Services Vault by identifying and resolving inter-service sync issues, resulting in 82% reduction in failure rate.
  - Enhanced the efficiency of rollover process for authentication certificates of Azure Workload containers and automated the cleanup for 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, KA, 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.
  - Produced an MVP for Raydius, a cross-platform mobile application (Android and IOS) using React Native and NoSQL database.
  - Validated the customer usage for selected localities in Bangalore and identified 4 types of events as primary verticals, which contributed to enhance the application features for those verticals by later teams.

## SKILLS

- Languages:** Java, C++, Python, C#, JavaScript
- Databases:** SQL, Azure Storage (NoSQL), Kusto
- Libraries/Frameworks:** .NET, Swagger, OpenGL, D3.js, React Native
- Technologies:** Azure, Git, Docker, Unreal Engine
- Concepts:** Cloud Computing, Distributed Systems, Data Structures, Software Engineering, Data Science

## 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, generating predictions for simulations of 100 human agents in 2000 years within 6.5 hours of real-life run time. Implemented the agent model and visualization using Python, Java, and Repast City framework.
- TELECOMMUNICATION SPECTRUM DATA VISUALIZATION:** Integrated 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 year, i.e., 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.
- Elected member 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.
- Head of Aikyam (Social Service Community of IIITB) for two years. Volunteered and led different activities of the club like fundraisers, donation drives, blood donation camps and orphanage visits.