

# 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.
  - Contributed to adding Azure Monitor alerts for Azure Backup, by sending alerts to users for 12 critical scenarios related to backup security and job failures of Azure Backup, currently operational in over 1600 backup vaults with ongoing expansion.
  - 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.
  - Improved 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:** Built an Agent-Based model to simulate the onset of drug resistance in tuberculosis bacteria and subsequent spread of the disease in a constrained environment, where the model was able to generate predictions for simulations of 100 human agents in 2000 years within 6.5 hours of real-life run time. Developed 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.