

Srinivas Charan Madu

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EDUCATION

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

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 the deployment templates of 4 Azure Backup 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 of authentication certificates of Azure 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, 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 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 2.5 years. Volunteered and led different activities of the club like fundraisers, donation drives, blood donation camps and orphanage visits.