

Employment

Research Fellow **National University of Singapore** **Feb 2023-May 2023**

- **Developing** efficient algorithms for the clustering problem on large data sets with missing or erroneous data.
- This **improved** unsupervised learning for machine learning algorithms and has further applications in NLP (spelling correction), speech recognition, DNA storage, protein sequencing, recommendations etc.

Software Engineer **Cisco Systems** **August 2021 - Feb 2023**

Experienced professional with strong analytical and problem solving skills across the whole Software Development Life Cycle with demonstrable ability in **Java, Python, C++** with focus on testing, debugging, **REST API** development and maintaining high quality code in large scale complex backend environment.

- **Automated** the process of upgrading/rollback a server to the required patch level which saved huge time and simplified the process for all the developers.
- **Feature Development** Owned and delivered a feature for Webex. The tasks included
 - Taking Requirements specification, size estimation, architecture design, coding, writing functional specification, unit tests and deployment testing.
- Delivered **Tech-talk** on writing Unit Tests using JUnit for legacy code and follow object-oriented design.
- **Improved** Webex calling services by fixing backend bugs related to Call Recording, Call Centers, VoiceMail.

Projects

- **Personal Assistant BOT on Webex** Developed a bot which helped developers to create issue on Jira, update issue, fetch comments, change status, fetch assigned tasks and schedule meetings with a simple text message in the webex chat space. Python, Webex-node-bot-framework.
- **TOTP** Implemented Time-Based OTP which is used for 2-Factor Authentication based on RFC6238.
- **SMS/Call Automation** Created an android app to automate SMS and Calls at a particular time.
- **Data Analytics : Suicides in India** Analyzed suicides in India of last 1 decade to study age group, cause for suicides, and other factors. Used Pandas library to parse data and Matplotlib and Seaborn for visualizations.
- **Stop and Wait Protocol** (Computer Networks). Implemented Stop and Wait Protocol for file transmission using Java Socket Programming. Java, Socket Programming, UDP, OOP.
- **Multi Client-Server File Transfer Protocol** Designed a platform independent File Transfer Protocol which could handle multiple client requests. Java, Socket Programming, TCP/IP, OOP.

Education

Chennai, India **Indian Institute of Technology** **2018 - 2021**

- **MS** in Computer Science and Engineering. **GPA: 8.0/10**

Kolkata, India **WB University of Technology** **2014 - 2018**

- **Bachelor's of Technology** in Computer Science and Engineering. **GPA: 8.61/10**

Scholastic Achievements

- **Paper** titled "On Alternation, VC-dimension and k-fold Union of Sets" **accepted** in EuroComb21 at Barcelona.
- Obtained **99.11 percentile** in GATE Computer Science 2018 out of 100k candidates.
- **Presented** 3 papers in **IEEE IEMCON 2016 on IoT** - Energy Efficient Data Centers, Smart Asthma Attack prediction and Smart Traffic and Parking management.
- **Solved** 500+ Data Structures and Algorithms problems in various challenges. **LeetCode** Profile, **InterviewBit** Profile Competitive Programming with C++

Languages and Technologies

- **Languages:** C++, C, Java, Python, MySQL, Django, MongoDB, CSS, HTML, Bash.
- **Adv Java:** OOP, Maven, Spring Framework, Hibernate, JPA, JUnit, Mockito, RESTful API, PowerMock.
- **Other Skills:** Android App Development, Docker, Git, SVN, Linux, JIRA, Google Cloud, AWS, Agile Methodologies