

# Ayush Ranjan Singh

## Engineering Undergraduate

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🌐 http://www.caffeine-coated.codes/

## EXPERIENCE

### 📁 SDE-Intern | Tookitaki, Singapore.

*Scala, ActiveMQ, JMS, Spark, MySQL*

📅 October, 2020 – Jan, 2021

- Developed a client-application to fetch messages from ActiveMQ-Broker with low latency.
- Created a JMS-Client, from scratch, which can be clubbed with Spark-Streaming application(s).

### 📁 SDE-Intern | Excain LLP, India.

*Microsoft Azure, OpenCV, REST APIs*

📅 July, 2020 – Sept, 2020

- Worked as an Intern with the ML team of Excain LLP.
- Developed an OCR model which could transform handwritten prescriptions to digital text.

### 📁 Web Developer | Developers Club, NIT-A.

*NodeJS, ReactJS, JavaScript, REST APIs*

📅 March, 2020 – June, 2020

- Worked on the development and deployment of full-stack web application “IIIT-Agartala”.
- Created the frontend pages, and the dynamic header bar of the website.

## TECHNICAL SKILLS

- **Programming Languages:** Python, C++, Scala and Java.
- **Libraries and Tools:** ActiveMQ, Spark, Kafka, NodeJS, React, Express, MongoDB, Django, SQL, PyTorch, Firebase, GIT, ROS and Tensorflow.
- **Software Packages:** Postman, Jupyter Notebook, Simulink, Adobe Photoshop, Android-Studio, Vim, UNIX.

## AWARDS AND ACHEIVEMENTS

- Worldwide Rank of 776 on InterviewBit.
- One among the 50 students selected, from all across India, for Google-ExploreML program.
- Institute Rank 2 on GeeksForGeeks.
- Secured 4<sup>th</sup> Rank in RoboWar at IIT-GHY Techniche’19.

## LEADERSHIP ROLES

- Served as the Lead for the Developer Students Club-NITA.
- Managed the work and events of the Robotics Club, NIT-Agartala as its General Secretary.
- Lead the Robotics team “ANNHILATORS” to victory in several competitions.

## EDUCATION

Bachelor of Technology (Electrical Engineering)

🎓 National Institute of Technology-Agartala

📅 2022

🎓 CGPA: 9.35/10

With 9.96/10 SGPA in the 4<sup>th</sup> Semester of Study.

## PROJECTS

### 🔧 Autonomous Robot | Personal Project

*Tensorflow, OpenCV, Keras, Raspberry-Pi*

Link: <https://youtu.be/0Fff2ncdbPo>

- Developed an autonomous robot which can navigate itself in a controlled environment.
- The robot uses onboard Raspberry-Pi to process the data received from various sensors (including onboard camera).

### 🔧 LinkinJMS | Tookitaki

*Scala, Spark, JMS, ActiveMQ*

Link: <https://github.com/WinterSoldier13/linkinJMS>

- Developed a package from scratch to connect and fetch messages form ActiveMQ broker.
- The application also supported writing messages to the topic/queue of the ActiveMQ.

### 🔧 Professor-Mirror | Group Project

*NodeJS, JavaScript, Firebase, MongoDB*

Link: <https://bit.ly/3f9Suxh>

- Worked on the backend for an application where the students can rate their professors on several parameters (Research, Interaction with students etc.)
- The app uses MongoDB for persistent storage and Firebase to store details about Users and facilitate authentication.

## PUBLICATIONS

- **SYNTHESIS OF COMPOSITE LOGIC GATE IN QCA EMBEDDING UNDERLYING REGULAR CLOCKING.**  
Journal: Facta-Universitatis  
Status: Submission-accepted
- **REGULAR CLOCKING BASED AUTOMATED CELL PLACEMENT TECHNIQUE IN QCA TARGETTING SEQUENTIAL CIRCUIT.**  
Journal: Computers and Electrical Engineering  
Status: Submitted-for-review