

Rudra Sarkar

Portfolio: <https://rds8rds.github.io>

Github: <https://github.com/rds8rds>

Leetcode: <https://leetcode.com/rds8rds>

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Omaha, Nebraska

ACADEMIC CREDENTIALS

- **University of Nebraska, Omaha** Nebraska, USA
Masters of Science- Computer Science and Engineering CGPA 4/4 Fall 2025 - ongoing
- **Rajshahi University of Engineering and Technology** Rajshahi, Bangladesh
Bachelor of Science - Computer Science and Engineering CGPA 3.13/4 Jan 2017 - Dec 2023

RESEARCH INTERESTS

- **Computer Vision, Deep Learning, cyber-physical systems, Machine Learning, natural language processing:**

PROFESSIONAL EXPERIENCE

- **University of Nebraska, Omaha** Omaha, Nebraska
Graduate Research Assistant August 2025 - Ongoing
 - **Toxicity Analysis in SWE Domain:** Conducted high quality empirical research on toxicity in software development repositories in GitHub pull requests and bug reports using quantitative (logistic regression, bootstrapped CIs) and qualitative coding to map drivers, prevalence, and impacts; translated findings into actionable mitigation strategies (moderation heuristics, reviewer coaching, norm setting guidelines, and tool developing for early detection).
- **Neural Semiconductor Limited** Dhaka
Software Engineer (Full-time) August 2024 - Present
 - **Testsprint360.com:** Testsprint360 is a industry leading software automation tools, I contributed to its website's subscription managing project as well as its intermediate back-end processor. Implemented various types of algorithms, database designing, CI/CD pipelines. **Tech:** Springboot, Postgres, RabbitMQ
 - **HRM-ERP Backend:** Developing & managing industry-standard HRM-ERP Backend with micro services for functionalities like payroll, attendance, and food management also building APIs for front-end applications backed by relational database like PostgreSQL. **Tech:** Springboot, Postgres, RabbitMQ

SKILLS SUMMARY

- **Languages:** JAVA, Python, C++, JavaScript, SQL, Bash
- **Frameworks:** TensorFlow, Keras, Spring Boot, Django, NodeJS
- **Tools:** GIT, PostgreSQL, MySQL, SQLite
- **Platforms:** Linux, Web, Windows, Raspberry, AWS, GCP
- **Soft Skills:** Leadership, Event Management, Writing, Public Speaking, Time Management

SELECTED PROJECTS

- **CRUD Back-end API:** Developed a back end CRUD API with JavaScript, Node, implemented user authentication, data validation, optimized database interactions using PostgreSQL
- **Graphical Projects with p5 Library:** I implemented thought-provoking simulations using p5 Library like game of life, sand simulation, simulating mathematical equations
- **My Portfolio:** My portfolio to present my works, my current interests & objectives

RESEARCH EXPERIENCE

- **Undergraduate Thesis: Plant Species Detection with Convolutional Neural Network:** Convolutional Neural Networks (CNN) are increasingly used for plant species identification due to their efficiency in feature detection from images. My proposed CNN model achieved 96% accuracy on the UCI ML Repository leaf image dataset, demonstrating its potential to assist botanists and support biodiversity conservation.
- **Project Work using Deep Learning:** I developed some image classification models using TensorFlow and Convolutional Neural Networks (CNN) during my period as a member of the RUET Analytical Programming Lab:
 - Flower Image Classifier – Trained a CNN model to classify flower species using TensorFlow. 🌸
 - Fruit Image Classifier – Built a CNN-based classifier for recognizing different fruit types.

HONORS AND AWARDS

- Reaching top twenty percent of coders, at Leetcode.com (solved over 600 problems)
- Passed the Level-2: Fundamental Information Technology Engineer Examination (FE)
- Poster Presentation Champion, at "KUET Technival 2018"
- Participant at regional Math Olympiad, Rajshahi
- Participant, at Power & Energy Hackathon 2018 [worked on solar barges to produce clean electricity]

LANGUAGE PROFICIENCY

- **Bangla:** : Native Language
- **English:** : Fluent, **IELTS** (Cumulative band score of 7, Listenting: 8.5, Reading: 7, Speaking: 6.5, Writing: 6)

VOLUNTEER EXPERIENCE

- **Senior Executive Member** RUET
Arranged carrier-related workshops and sessions impacting over 4000 students. May 2017 - Dec 2018
- **Lead Graphic Designer at HULT Prize at RUET** RUET
Designing graphics, poster, workshop material for HULT Prize at RUET Jan 2018 - Dec 2018