SHARATH S | 21EE10096

ELECTRICAL ENGG. (B.Tech 4Y)
MINOR in COMPUTER SCIENCE & ENGG. (B.Tech 4Y)

EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2026	B.TECH	IIT Kharagpur	8.61 / 10
2021	CBSE(XII)	Senior Secondary School Sector-X	97.4%
2019	CBSE(X)	Senior Secondary School Sector-X	96.6%

PROJECTS

LinkedOut | Project on Front-end Development and Web Scraping [May-2024]

- Deployed a web application using **CSS**, **ReactJS**, **Python, Selenium** and the **Beautiful Soup** library to scrape information about an organization's employee count and followers from **LinkedIn**
- Mechanized LinkedIn login and data extraction, mimicking **legitimate browser activity** to reduce the risk of bans, and handles OTP verification with a user defined waiting period before proceeding
- Utilized **asynchronous data fetching** in the React frontend using **Promises**, enabling the application to handle **multiple API requests** simultaneously, ensuring efficient data retrieval for multiple companies
- Configured **CORS** in the project to enable efficient and secure data sharing between the frontend and backend

Machine-Learning Algorithms | Laboratory Assignments [Jan-2024 to Apr-2024]

- Implemented the following Machine Learning algorithms **from scratch** as part of the laboratory assignments : K-Nearest Neighbours, Linear Regression and Classification, Naive Bayes, Decision Trees, Support Vector Machines, Feedforward Neural Networks, Convolutional and Recurrent Neural Networks, Ensemble Learning, K-Means Clustering, Gaussian Mixture Models

Time-Series Analysis | Research project under Prof. Mahesh Mohan MR [Jan-2024 to Present]

- Conducted advanced research in **time series analysis** and **signal processing**, focusing on the model **TimesNet,** the state-of-the-art Machine Learning model for forecasting, imputation, anomaly detection, and classification tasks, under the supervision of Professor Mahesh Mohan MR

Conflict Based Search | Course Project on Artificial Intelligence [Nov-2023]

- Implemented a state-of-the-art multi-agent pathfinding algorithm (**Conflict Based Search**) using **Python**
- Integrated the **A*search algorithm** at the lower level for optimal single-agent pathfinding
- Designed a **conflict resolution** mechanism at the higher level to handle agent collisions efficiently

AWARDS AND ACHIEVEMENTS

- Peak rating of **1954** (**Knight**) on **Leetcode** and **1405** (**Specialist**) on **Codeforces**
- Secured a **global rank** of **62** out of **40,000** participants in **Codechef Starters 126**
- Solved over **1500** problems across multiple coding platforms including Leetcode, Codeforces, and Codechef
- Ranked **1378** in **JEE Main** among **1 Million** candidates and **5925** in **JEE Advanced** among **150K** candidates
- Granted **Departmental Change** to Electrical Engineering after first year of college for obtaining a **CGPA** of **9.33**

SKILLS AND EXPERTISE

Languages : Proficient **:** C, C++, HTML, CSS, Javascript   Familiar **:** Python, SQL
Libraries and Frameworks : STL**,** NodeJS, ExpressJS, BcryptJS, Mongoose, Axios, Matplotlib, Numpy, Pandas
Softwares: Colab**,** Matlab, Simulink, LT Spice, Github, VSCode, MS Office, Photoshop

COURSEWORK INFORMATION

Computer Science: Computer Architecture and Operating Systems, Database Management Systems, Programming and Data Structures, Hardware Security, Machine Learning: Foundations and Applications, Artificial Intelligence: Foundations and Applications, Data Structures and Algorithms
Mathematics: Probability and Statistics, Linear Algebra, Numerical Analysis, Transform Calculus, Advanced Calculus

EXTRA CURRICULAR ACTIVITIES

- Actively participated in the institute **athletics**' events, and completed NSO Athletics as a part of the curriculum
- Core member of the Rajendra Prasad Hall **Illumination Design team**, having won gold for 14 consecutive years
- Currently serving as a highly accomplished Student Mentor at **Physics Wallah Private Limited**, one of the largest edTech organizations in India, and helped over **1000+** students achieve their academic and career goals