

## Education

### Amity University

BACHELOR OF TECHNOLOGY (B.TECH) (CPI: 7.46/10)

- **Major:** Computer Science and Engineering

Noida, IN

2020 - 2024

## Experiences

### Research Intern

#### Umeå University

MENTOR: PROF. MONOWAR BHUYAN, ZHOU ZHOU

- Working on long sequence time-series forecasting with states-of-the-art Transformer model, utilizing diverse tools and techniques.

Remote

Feb 2024 - Current

### Research & Development Intern

#### Samsung Research

MENTOR: Koushik Rout, Shreyas Jain, Nitish Kumar Jha

- Researched unsupervised learning algorithms for anomaly detection in time-series data, focusing on application/system metric anomalies.
- Collaborated in a team of 4 to study and implement various models, including DeepAnT, Local Outlier Factor, and Facebook's Prophet, gaining hands-on experience in model implementation, and anomaly detection techniques.
- Played a key role in the preprocessing and fine-tuning of Facebook's Prophet model, achieving an anomaly detection accuracy with MAE of 6.21% - 6.47% and coverage of 81.05% - 82.66%.

Hybrid

Aug 2023 - Jan 2024

### Software Development Engineer Intern

#### Open Health Systems Laboratory

MENTOR: ANIL SRIVASTAVA

- Conducted comprehensive research on state-of-the-art Large Language Models (LLMs) such as Google PaLM, GPT-3, GPT-4.
- Collaborated with cross-functional teams on a project named Alzheimer's Detection, fine-tuned the model, and improved the overall accuracy, and performance of the algorithm.
- Developed REST API endpoints to optimize project functionality, ensuring seamless data communication between front-end and back-end systems, thereby reducing overall system latency.

Remote

May 2023 - July 2023

## Projects

### Navigation System for the Visually Impaired Report

MENTOR: DR. MISHA KAKKAR

- Conducted an extensive literature review (in group of 3), focusing on real-time object detection, depth estimation, and text-to-speech technologies, gathering key insights and the latest developments.
- Analyzed the findings to identify trends, strengths, and limitations of the researched techniques, providing valuable insights for the project's future phases.
- Filed a patent for the project, showcasing its innovative nature and potential for real-world impact.

Amity University

Aug 2023 - Dec 2023

### Scheduler Simulation Repository

TECH USED: JAVA

- Simulated Round Robin, FIFO, SJF, and uni-programming operating system scheduling algorithms in Java.
- Utilized priority queue to efficiently translate FIFO algorithm to SJF.
- Used quantum counters to ensure round-robin resource usage and prevent starvation.

Jan 2023 - Mar 2023

## Relevant Coursework

**At Amity University:** Analysis and Design of Algorithms, Data Structures, Java Programming, Object-oriented Programming, Cloud Computing Practitioner, Database Management Systems, Operating Systems, Exploring the Networks, Software Project Management, Linux for Devices

**Massive open online courses (MOOCs):** Generative AI with LLMs[[certificates](#)], Game Theory[[certificates](#)], Cyber Security and Privacy[[certificates](#)]

## Technical Knowledge

**Programming Languages:** C++, Java, GoLang, JavaScript, TypeScript, Python, Bash Scripting, SQL

**Frameworks/Libraries:** Node.js, Express.js, STL, NumPy

**Tools & Other Skills:** Version Control(Git, Bitbucket), RESTful API, AWS, 虚幻引擎, Unreal Engine, Postman, Unix/Linux, Agile Methods, Microsoft Excel