

SAINESH NAKRA

Email- nakra.s@northeastern.edu | website: sainesh.com |

EDUCATION

Northeastern University, Boston

September 2023– May 2025(Expected)

Masters of Science in Computer Science

Coursework: Database Management Systems, Programming Design Paradigm

Vellore Institute of Technology, Vellore

July 2017 – May 2021

Bachelor of Technology in Electronics and Communication Engineering (CGPA: 8.76/10)

PROFESSIONAL EXPERIENCE

Software Engineer | Bosch Global Software Technologies | (August 2021 – July 2023)

- Created and integrated safety-critical Driver Assistance and Failure Management features for **Audi** and **Volkswagen**, ensuring real-time detection of failures and enhanced passenger safety for 2 years.
- Led system test reviews for FSIFM with a 2-member team, receiving Agile and Best Tyro awards at Bosch.
- Designed, developed, and integrated 3 cross-functional features, serving as their single point of contact across Bosch Germany and Bosch India.
- Attained "ML Certified" status by excelling in Bosch's 1-year online master's program in Machine Learning.

Graduate Trainee | Bosch Global Software Technologies | (March 2021 – June 2021)

- Successfully co-implemented **PACCAR**'s CSG-2 for secure connectivity with firewall safety, earning an S grade for the final year project

Winter Intern | Honda Cars India Pvt Ltd | (January 2021 – March 2021)

- Developed a research report on the UI-UX and performance of Honda Cars India's customer-facing mobile and web application.
- Created and presented reports using data analytics (Python) to reduce the number of customer-problem tickets by 50%.

Summer Intern | NEC Technologies Pvt Ltd | (May 2019 – July 2019)

- Worked on the backend development of a web application for the government project called **Cani Submarine**.
- Built a module to handle server load using RabbitMQ to handle 4x times the server load and conducted the parsing of SOAP response into classes - converting the WSDL file into Java objects.

Summer Intern | UNO Minda Group | (May 2018 – July 2018)

- Wrote the Code for using 3-dimensional coordinates for location and movement in place of the 2-dimensional coordinates previously used by the company device.
- Modelled and coded the complete Accident detection module for the company device in C++.

Research Assistant | VIT Innovations Lab | (February – March 2018)

- Contributed to the development of the world's first clinically validated portable visual field perimeter, "Peri-Screener" (now **C3 Field Analyzer**).
- Researched VR depth perception for product development, conducting experiments with "Leap Motion" and an AR pen integrated with Unity.
- Recognized with a certificate of appreciation from VIT University for outstanding research contributions.

PROJECTS

- **Automatic Lung Segmentation of Chest X-Ray:** Built a Deep Convolutional Network model for segmentation of lung parenchyma from posteroanterior and anteroposterior views of the chest X-ray to facilitate further automated diagnostics of the lungs for diseases and anomalies using Top-Bottom-Hat Morphological Transformation and Contrast Limited Adaptive Histogram Equalization for pre-processing of the chest x-ray images. Also used the Image augmentation technique to help train the model better and avoid overfitting. (<https://www.youtube.com/watch?v=LknW9qrlbgA&t=203s>)
- **React and Firebase Social Networking App-** <https://linkedin-clone-b19eb.web.app/>- Developed an interactive LinkedIn-clone with advanced authentication, enabling seamless user functionalities for posting photos, videos, written posts, and effortless content deletion.

TECHNICAL PROFICIENCY

- **Programming Languages**– C, C++, Python, JavaScript, Java, Solidity

- **Operating System**-Ubuntu, Mint, Windows, macOS
- **Database (DB)**-MongoDB, SQL, Firebase
- **Testing** – Google Test, Selenium, RQM
- **Certifications and Courses** – “Data structures using Python” from IIT-Madras, “Introduction to the Internet of Things and Embedded Systems” from UC-Irvine, 40-hour Bootcamp on “Web Development”
- **Others**–Scrum, Git, SpringToolSuite, ReactJS, NodeJS, ExpressJS, IBM Doors, NumPy, Pandas, Keras, and TensorFlow

ACHIEVEMENTS

- Secured an Elite grade in “Data structures using Python” certification from **IIT-Madras**.
- Winner of the CSE School – SCOPE Hackathon.
- Mentored 8 team members at Bosch and curated a comprehensive library of Knowledge Transfer sessions.
- National Squash Player and achieved an all-India rank of 11th.
- Accomplished Grade 4 in Guitar from **Trinity College, London**, and Grade 3 from **Rockschool, London**.
- Volunteer in AIESEC.
- Co-founded Comedy Club at VIT.