

SHUBHODEEP MITRA

(602) 849-3716 • smitra27@asu.edu • [linkedin.com/in/shubhodeep-mitra](https://www.linkedin.com/in/shubhodeep-mitra) • <https://shubhodeepmitra.github.io/>

EDUCATION

M.S. Computer Science

August 2022 - May 2024

Arizona State University, Tempe, AZ

Courses Registered: Foundations of Algorithms [CSE 551], Distributed Database Systems [CSE 512], Privacy & Machine Learning [CSE 598]

B.E. Computer Science and Engineering

August 2014 – June 2018

The National Institute of Engineering (NIE), Mysuru, India

CGPA: 8.74/10

TECHNICAL SKILLS

Programming Languages: Java, C/C++, Bash, Python

Framework: SpringBoot, React.JS, Redux, Android Programming (Java), Kafka, Docker, REST

Tools, Databases, and OS: SQL, Postgres, Redis, MongoDB, Firebase, Git, GitHub, Windows, macOS, Linux/Unix

PROFESSIONAL EXPERIENCE

Hewlett Packard Enterprise, Bangalore, India: Software Engineer II

July 2018 – July 2022

- Contributed to the design and development of VLAN Translation, Multi-Zone User-Based Tunneling, and IP-Subinterface protocols for next-generation Aruba Core and Aggregator switches.
- Moved to different projects to deliver time-critical business features for release. Adapted to new environments to complete the development on time.
- Implemented enhancements of Multicast protocol IGMP and MLD, effectively reducing Customer Defect's debug effort by 80 percent.
- Won a hackathon by solving the parking space issue faced by employees on the HPE Bangalore campus, thereby saving 30 minutes of daily commute time.
- Collaborated with architects and recognized patterns of the problems in customer production environments. Researched innovations to solve them and provide business an edge over the competition. Applied for two patent innovations.

RELEVANT PROJECTS

Discord Clone

July 2022

- Developed a web app utilizing **React.JS** and **Redux** to clone the channels and chat features of the discord.
- Used **Firebase** to enable user sessions and store chat history.

Direction Simulator

August 2021

- Developed a direction simulator using two locations - A & B, and their latitude & longitude. Computed 'real' points on the road which connect A & B at a constant distance interval of 50m.
- Developed in **Java** using Google directions API.

Real-Time Parking Spot Notification, Hewlett Packard Enterprise

January 2020

- Developed an Android Application that keeps track of the cars entering and leaving campus, thereby providing real-time parking spots available on the campus.
- Utilized the **OpenCV** and **TensorFlow** libraries in **Python** to track cars and update the count using **Firebase**.

Voice Controlled RC car, Class Project, The National Institute of Engineering

January 2018 - March 2018

- Developed an IoT project as part of the class curriculum. An RC car was controlled using voice commands conveyed through an android app using the MQTT protocol.
- Used the MVC (Model, View, Controller) Architecture and followed traditional mobile development conventions.

EXTRACURRICULAR EXPERIENCE

Chairperson IEEE Computer Society, NIE IEEE Student Branch, Mysuru, India

July 2015 – June 2016

- Planned and organized tech talks, workshops, coding competitions, and a hackathon.
- Lead a team of 6 volunteers to successfully manage events attended by more than 100 students.
- Recognized and endorsed by Hironori Kasahara, IEEE Computer Society President 2018 in leadership.

ACM ICPC Amritapuri, India Regionals

December 2017

PUBLICATION

Novel TLS Signature Extraction for Malware Detection, IEEE CONECCT

July 2020

Researched a solution at Hewlett Packard Enterprise to identify the presence of malware in a network flow from the initial unencrypted Client Hello packet of TLS.