SHREYA SAHA

La Jolla, CA-92037

+1 (858)241-4760, shreyasaha25@gmail.com, ssaha@ucsd.edu

EDUCATION

University of California, San Diego ***September 2021-Present***
Master of Science in Computer Science ***CGPA – 4.0***

National Institute of Technology, Durgapur, India ***2015-2019***
Bachelor of Technology in Computer Science and Engineering ***CGPA – 9.14/10***

ACADEMIC PROJECTS

Title: Domain Adaptation Using Neural Architecture Search ***2021- Present***
Advisor - Pengtao Xie

- Domain Adaptation using NAS methods (DARTS, P-DARTS and PC-DARTS) and the skillearn algorithm.
- Datasets being used - OfficeHome and Office31

Title: Visual Matrix Prediction ***2022- Present***
Advisor - Pengtao Xie, Alireza Kamalipour

- Use Optic nerve head images of eyes to predict 10-2 and 24-2 visual matrix

Title: Gene Expression Analysis ***2022- Present***
Advisor - Debashish Sahoo

- Processing solid cancer genome datasets from Gene Expression Omnibus (GEO) website to hegemon website created by Boolean Lab.
- Analyzing and validating invariant biomarkers for White Blood Cells using BECC technique
- Designing primers to duplicate genes from a given genome sequence

Title: **Robot Motion Planner Using a Jetbot** ***2021***

- Designed a 'roomba' like system using Voronoi path planner and KALMAN filter based SLAM techniques that would navigate through the environment using artificial landmarks (April tags).

Title: Python Compiler Using Typescript and WASM ***2022***

- Designed and build a python compiler that takes care of comprehension statements
- Collaborated with 50 other students to integrate the above functionalities with other python expressions (namely lists, conditional expressions, built-in libraries etc)

Title: PUF based Protocol for Secure WiFi Authentication of IoT devices ***2017-2019***

- Used Physically Unclonable Functions(PUFs) to secure IoT devices against WiFi attacks via xor encryption of the challenge-response pairs of the PUF, MAC address of the connecting device and a random number nonce
- **Publication:** *Mahabub Hasan Mahalat, Shreya Saha, Anindan Mondal and Bibhash Sen,"A PUF based Light Weight Protocol for Secure WiFi Authentication of IoT devices",2018 Eighth International Symposium on Embedded Computing and System Design (ISED)*

INTERNSHIPS AND PROFESSIONAL EXPERIENCE

Meta (Facebook)
Software Engineering Intern at Facebook Marketplace Intelligence ***June 2022 - September 2022***

- part of the Facebook Marketplace Product Intelligence team
- Worked on investigating the causes for low quality data that leads to poor performance by ML models
- Created additional Artificial data to train the marketplace ML models

J P Morgan and Chase, Bengaluru, India

Software Developer I ***July 2019-December 2020***

Software Developer II ***January 2021- August 2021***

- designed a CQRS framework that helped automate user requests without manual intervention using the axon framework
- developed various microservices for the above framework and helped other teams onboard to this framework

Software Engineering Intern ***May 2018 -July 2018***

- built an UI framework on top of Flower (a web based tool for monitoring Celery events) that visualized the various stages of a user task.

Revotic Engineering (Startup)

Software Engineering Intern ***October 2018-January 2019***

- built a python REST API on top of ipfs.io which allows the user to perform various InterPlanetary File System (ipfs) functionalities
- built a desktop application that allows the client to perform ipfs functions locally
- **Publication:** *Shachindra, Sagar Ganiga, Shreya Saha, Anish Mishra, Meit Maheshwari and Gaurv Kumar, "Secure and Decentralized Live Streaming using Blockchain and IPFS -Workshop",2019 ThirdWorkshop on Blockchain Technologies and its Applications*

Indian Institute of Technology, Bombay

Software Engineering Intern ***May 2017-July 2017***

- built a platform (XBlock) to help teachers conduct online examinations, automatically grade the student's work and graphically display the student's performance.

University of California, San Diego

Teaching Assistant

Course - Advanced Data Structures (CSE 100) ***Spring 2022***

Course - Theory of Computation (CSE 105) ***Fall 2021, Fall 2022***

- Hold office hours and discussion sessions to clear doubts and discuss common problems and grade assignments