Saurav Malani

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EDUCATION

IIIT HYDERABAD

B.tech and M.S. by Research
Computer Science And Engineering
MS CGPA: 9.25
Expected Graduation: May 2020

RELEVANT COURSES

Data Warehousing& Data Mining
Database Systems
Machine Learning
Statistical Methods in AI
Artificial Intelligence
Principles of Information Security
Advanced Computer Networks
Operating System
Distributed System
Graphics

ACHIEVEMENTS

- **232th rank** in 4401 teams in **ACM-ICPC'19** Asia Region Online Round.
- **Dean's List Award** for Academic Excellence.
- **Research Award** for publishing an IEEE paper during my undergraduate.
- **Top 0.001% among 1.2 Million** Student in All India Engineering Entrance Exam-15.

POSITIONS

- **Teaching Assistant** for Algorithm Analysis & Design, Principles Of Information Security Course at IIIT-Hyderabad.
- Student Head @ Python Conference Hyderabad-17.
- Placement Committee member.
- TEDx Volunteer.

SKILLS

PROGRAMMING

Day to Day:
C/C++ • Python • Bash
MySQL •
Familiar:
Golang • Neo4J • Matlab
JavaScript • PHP • OpenGL

TECHNOLOGIES

Worked on/with:
Linux • Docker • Kubernetes • GKE
• CI/CD • Machine Learning
• Internet of Things • Apache Solr

EXPERIENCE

BLOOMREACH | Data Science Intern

May-19 – July-19 | Bangalore
- Improved the Spelling Correction Component of the Apache Solr Search engine, used by Bloomreach, to handle the typographical and phonetic error and then generate suggestions corresponding to the spelling mistake by taking context into consideration, by creating a Hidden-Markov Model with the help of past search logs.

GOOGLE SUMMER OF CODE | Cloud Native Computing Foundation (CNCF)

May-19 – Aug-19 | Remote
- Redesigned the Cortex, a distributed monitoring tool, architecture to improve the Ingesters handover procedure in scaling-up and scaling-down.

LINUX FOUNDATION | Open Source Developer

May-18 – Dec-18 | Remote
- Worked on updating OpenAPI SecurityDefinition in Kubernetes Python-Client to use Authorization header name, following HTTP standard.
- greatest Worked on updating OpenAPI SecurityDefinition in Kubernetes Python-Client to use Authorization header name, following HTTP standard.
- Added a Utility for OpenFlow Plugin, to delete Cookie based flow in one shot.

KALHATTI, US BASED STARTUP | Crypto Engineer

Dec-18 – Feb-19 | Remote
- Developed & Implemented decentralized authentication system using the idea of Threshold Multiparty Signature in React.js.

RESEARCH

Theoretical & Applied Cryptography Researcher

Mar-18 – Present | CSTAR Lab IIIT-H
- Pursuing research under Dr. Kannan Srinathan on Functional Encryption & Fully Homomorphic Encryption.
- Published a paper proposing Anonymous Device Access Control scheme for IoT Environment.

SELECTED PROJECTS

Cryptocurrency Price Predictor | Python, Machine Learning Libraries

- Built a price predictor for Bitcoin and Ethereum Cryptocurrency by doing time series analysis using ARIMA & Holt-Winter method.

Mini Shell | C

- Created a Shell from scratch for linux systems capable of handling background and foreground processes, piping, redirection, common BASH commands and employed the use of system calls.

Ultimate Tic Tac Toe bot | Python

- Implemented an AI minimax bot that plays 4 by 4 Ultimate tic tac toe and optimized it using alpha-beta pruning and cached transition table

PUBLICATIONS

- Published a Journal to address "Certificate-Based Anonymous Device Access Control mechanism for IoT Environment" in IEEE Internet Of Things Journal.