# SUBHDEEP SAHA

Fourth Year Undergraduate Department of Computer Science and Engineering Indian Institute of Technology, Kanpur

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# EDUCATIONAL QUALIFICATIONS

Year	Degree	$\operatorname{Institution}(\operatorname{Board})$	CGPA/%
$2015 - 2019  ext{ (Expected)}$	B.Tech, CSE	Indian Institute of Technology, Kanpur	6.13/10.0
2015	AISSCE – XII	Sudhir Memorial Institute, Kolkata (CBSE)	88.4%
2013	AISSE – X	DAV Model School, Kharagpur (CBSE)	10.0/10.0

# SCHOLASTIC ACHIEVEMENTS

- AIR 5205 in JEE Advanced 2015
- Ranked in top 1 percentile in **JEE Main 2015**, among 14 lakh appearing candidates

#### **PROJECTS**

# Dashboard Web Extension/App

IIT Kanpur

Inter IIT Tech Meet

February, 2017

- Involved in creating a web extension which acted as a user's home page
- Server Side was implemented as multiple microservices in various languages (Golang, Python, NodeJS) involving inter-process communication via JSON RPC
- Client side was implemented using Angular
- Fully **Dockerized scalable backend** running on a docker-compose setup
- Judged  $\mathbf{1}^{\mathbf{st}}$  among participating IITs
- Github: yashsriv/beethoven

#### Smart Mirror

IIT Kanpur

Programming Club, IITK

Summer 2016

- Built an IoT Mirror with a RPi and a display fitted with a 75% reflecting mirror
- The mirror had features such as weather forecast, calendar notifications and pushbullet notifications of a user (determined via face identification)
- Received Best Applicable Project
- Github: 11000011/Smart-Mirror

### Reversi Game in Python

IIT Kanpur

Assocition of Computing Activities, IITK

Feb 2016- April 2016

- Developed a python application using Pygame for 2 Players as well as Single Player Reversi
- Uses the negamax algorithm with an efficient heuristic check for better performance against humans
- Github: yashsriv/Reversi-Python

# Branch Predictor

IIT Kanpur

Course Project, Computer Architecture

6th Semester

- Implemented a branch predictor for intra class championship in a team of 2
- Was judged the best in class
- Github: yashsriv/branch-predictor

#### Tango

IIT Kanpur

Course Project, Compiler Design

6th Semester

- Base Language: Go, Target Language: x86 Assembly, Compiler Language: Go
- Github: yashsriv/tango

# MISCELLANEOUS

- Among the top 15 teams of India in CSAW 2016
- Exploited and secured the zoobar server as part of Computer Systems Security Course
- Open Source Contribution in Mozilla Firefox
- Mentored 6 students in making a Angular app where campus community can share their academic resources
- Built a Google Chrome Extension for Techkriti'17

#### Work Experience

#### Samsung Research Institute

Delhi India

Research Intern

Summer 2018

- Research work on device positioning estimation using **BLE** (Bluetooth Low Energy) signals
- Helped in setting up the API calls for signal broadcasting in speakers which support BLE
- Carried out experiment to determine the stability of the RSSI (Received Signal Strength Indication)
- Wrote utility python scripts

## New York Office, IIT Kanpur

Kanpur, India

Frontend Developer, under Prof. Manindra Agarwal Summer 2017

- Worked on a scalable information management and retrieval system for New York office of IITK
- Led a team of 4 members and was a peer mentor during the course of the internship
- Implemented linking of user's Facebook account
- Ported components of Angular to the Redux model
- Integrated Prose Mirror in the existing Web-App

# Whitelogic

Chennai, India

Frontend Developer

Winter 2016

- Client Technologies Developer in a startup organization
  Built a web application from scratch using Angular 2
- Built a web application from scratch using Angular 2
  as the framework Worked with a REST-api along with
  Typescript to develop the app
- The MVC Design Pattern was followed to create scalable code. The application has been deployed in a few major Fortune 500 companies

## Localites

Free lancing

Full Stack Developer

Summer 2018

- Worked on a web application using the MEAN stack
- Integrated Rezdy API into the existing web application
- Implemented generic model for easily populating data

# SKILLS

# Programming:

Proficient: Python, C++, Javascript, Typescript

Experienced: C, Golang, Shell Exposure: Java, Haskell

Web: Express with Typescript, Flask with Python

TypeScript, Angular, Reactive Programming
Utilities: Linux Shell Utilities, NgRx, GDB, Git, Docker,
MongoDB, LaTeX, Vim, Numpy

# Relevant Courses

CS: Fundamentals of Computing, Computer Organization, Data Structures and Algorithms, Computing Laboratories -1&2, Operating Systems, Computer Systems Security, Compiler Design, Computer Architecture, Computer Networks Math: Discrete Math, Probability and Statistics