

# Dhruv Mongia

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## Education

### Pennsylvania State University

Harrisburg, PA

#### MS Computer Science, GPA: 3.39/4.0

Aug. 2019 – Dec. 2020

Artificial Intelligence, Neural Networks, Design and Analysis of Algorithms, Adv. Operating System, Adv. Database Management System

### Guru Gobind Singh Indraprastha University

Delhi, India

#### B.Tech Information Technology, GPA: 8.76/10.0

Aug. 2015 - May 2019

Data Structures, Object Oriented Programming, Computer Architecture, Cryptography and Network Security, Java Programming, Cloud Computing, Mobile Computing, Ad-hoc and Sensor Networks, Wireless Networks, Mobile Computing, Soft Computing, Theory of Computation

## Skills

Python, Java, Kotlin, C++, HTML, CSS, JavaScript, Node.js, Angular, Ember.js, Ionic, SQL, MongoDB, DynamoDB, Elasticsearch, TensorFlow, AGILE, Git, AWS, Arduino

## Experience

### Software Developer Intern

May 2020 - Aug. 2020

#### Amazon

Seattle, USA

Drove the design and implementation of a full stack project (Kotlin, Java, Node.js, Ember.js) which provides insights into a newly developed event-based transaction data store. Resolved for the following:

- Provision of controlled UI-driven query generation
- Deployment of extensible service-oriented APIs to serve UI requests and future applications
- Query translation into DynamoDB/Elasticsearch
- Provision of asynchronous report generation on S3

### Research and Development Intern

July 2018 - Mar. 2019

#### MHRD Innovation Cell, Govt. Of India

Delhi, India

- Deployed an event management portal using QR code-based system to hasten the process of marking attendance
- Developed the frontend for the official government website: mic.gov.in promoting government's innovative initiatives
- Drove the prototype for Institute Innovation Council portal promoting entrepreneurship mentality in senior secondary schools.

## Projects

### Wireless Sensor Network with Real Time Deep Learning

Jan. 2020 - May 2020

- Developed a system which collects streaming data from heterogeneous sensor networks and returns an analysis using deep learning.
- Specifically, targeted time-critical environments where data analysis results must be computed in deterministic time.
- Reasonably accurate query analysis results can be obtained within the deadline using the proposed method even if some sensor data is missing due to sensor network failure.

### Liver Disorder Prediction

Aug. 2019 - Dec 2019

Compared and contrasted the accuracy, sensitivity, specificity and precision of liver disorder prediction on the ILPD data set using back propagation and random forest techniques testing different hyperparameters

### IPU-GO

Aug. 2019 - Dec 2019

Developed the server using Node.js for the official mobile application of my university providing one stop destination to students and faculty to access academic data, events, and major happenings.

## Additional Qualifications/Experience

### Teaching Assistant: Penn State University

Aug. 2019 – Dec. 2019

Assist professors with grading undergraduate Computer Science courses such as Algorithm Design and Analysis, and Introduction to Programming Languages

### President of International Organization of Software Developers (MAIT)

Aug. 2017 - Aug. 2018

- Hosted extra curriculum classes imparting technical knowledge such as web/app development, machine learning, competitive programming and photoshop. Also mentored students on live development projects.
- Organized technical workshops, and events such as hackathons and competitive programming competitions.

### 3<sup>rd</sup> position at IIIT's Allahabad Hackathon

Aug. 2018

Developed an automatic ecosystem using Android, Node.js and Arduino that allows users to water their plants by the touch of a button depending on the moisture level of soil regardless of their distance from the plants.

### Volunteered at Let's Educate Children in Need (LECIN)

Feb. 2017 - Feb. 2019

Imparted quality elementary education to the slum children who are otherwise deprived of basic amenities