Ujjwal Singhania

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WORK EXPERIENCE

Full Stack Engineer – *Amazon Web Services, Cupertino, California* **August 2019 – Present**

- Re-engineered and optimized the core service responsible for detecting hardware failures by translating it from Perl to Python and reducing its latency by 5x.
- Spearheaded the creation of a team-first web platform in React, thereby reducing the development and deployment time of new monitoring from 3-4 weeks to 2-3 days.
- Led the creation of a UI wrapper around a data lake containing billions of rows of data to allow users to query and visualize the information in an intuitive way.
- Launched around 30 new monitoring schemas resulting in the detection and repair of tens of thousands of faulty computers annually.
- Developed data processors to discern metadata about failed hardware components to cut repair time from 3-4 days to less than a day thereby reducing the number of idle hosts and saving AWS millions of dollars in revenue.

Machine Learning Intern – *Play Games24x7 Private Limited, Mumbai, India* **June 2019 – July 2019**

- Spearheaded the development of a chatbot in ReactJS, NodeJS and MongoDB to automate customer support and built the API documentation in Swagger and Postman. Chatbot was able to resolve 6 out of the 10 queries most commonly received by customer support in less than 5 clicks.
- Authored a script that translated the company's API documentation written in apidocs to Open API 2.0.

Data Analyst and Machine Learning Intern – *In-Solution Global, Mumbai, India* **June 2018 – August 2018**

- Used Python (API: scikit) to predict when merchants would switch banks/when customers would default on their payments.
- Conducted tests on data from Indian banks to figure out patterns between merchant behavior and payment histories.

OPEN SOURCE PROJECTS

Project Lead for Hugo – Educational Chatbot (NYU Tandon Capstone Project) **September 2018 – May 2019**

- Hugo is a continuously learning educational chatbot that used past repository of data to answer student queries for any course.
- Built the application using NodeJS, ReactJS, ExpressJS, MongoDB (database backend) and Apache Solr (search engine).
- Won the Best Design Award at the New York University Tandon Senior Capstone Competition.

Machine Learning Engineer for SeeFood – Food Image Classifier **January 2018 – May 2018**

- Created a 16-layer convolutional neural network in Python (API: Keras) and trained it to recognize different food items.
- Achieved 99% training and 81% testing accuracy on a dataset I built from scratch.

EDUCATION

University of California Berkeley, California **August 2019 – May 2020**

Master of Engineering in EECS (Data Science and Systems) **GPA: 3.7/4.0**

- ***Coursework:*** Organizational Behavior and Negotiations, Machine Learning, Optimization Models in Engineering.
- ***Awards and Honors:*** Fung Excellence Scholarship.
- ***Capstone Project:*** Deepfake Detection – objective is to create a robust classifier that is capable of identifying and classifying deepfake images and videos.

NYU Tandon School of Engineering, New York **August 2015 - May 2019**

Bachelor of Science in Computer Science (Minor in Mathematics) **GPA: 3.9/4.0**

- ***Awards and Honors:*** Dean's List (2015 - 2019); Pearl Brownstein Senior Award (Awarded to the graduating senior with the highest GPA in the CSE Department); University Honors Scholar.

SKILLS

Programming Languages: C++, Python, Java, MySQL, JavaScript (Node and React), HTML and CSS.

Other Skills: Amazon Web Services, Keras, Scikit, Matplotlib, MongoDB.