Ayush Upneja

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Education

Boston University — Boston, MA
Senior, BS Computer Engineering | Dean's List | GPA: 3.6 — *Sept. 2017 – Expected May. 2021*

Experience

Nandy Lab at Yale University — New Haven, CT (Remote)
Machine Learning Research Intern — *Aug. 2020 – Present*
- Utilizing deep learning to infer latent dynamics from single-trial neural spiking data after visual stimulation to monkeys.

Amazon — Seattle, WA (Remote)
Software Development Engineering Intern — *May. 2020 – Aug. 2020*
- Developed a targeting criteria creation and evaluation portal for Alexa Shopping Hints as the sole project owner.
- Built database (DynamoDB), back-end APIs (Spring/Guice), and front-end portal (Handlebars.js) from scratch.
- Implemented end to end system and leveraged Cucumber framework for custom user unit tests.

Reflexis Systems — Dedham, MA
Software Engineering Intern — *Jun. 2019 – Aug. 2019*
- Worked with IBM's Cognos SQL business intelligence suite to conduct predictive analysis for retail clients.

Google Cloud — Boston, MA
Student Developer Fellow — *Feb. 2019 – Apr. 2019*
- Utilized machine learning and data visualization to quantitatively model "Explosiveness" for NCAA March Madness.
- Published and aired four real-time predictions on national TV, regarding possessions, offensive rebounds, assists, etc.

GE Aviation — Cincinnati, OH
Assembly and Test Software Engineering Intern — *May 2018 - Aug. 2018*
- Created cloud based vector calculator with Visual Basic and HTML. Used by over 500 Assembly Engineers.
- Developed predictive failure response tool, saving hundreds of waiting hours every week due to recurring faults.

Projects

Bare Metal Marketplace [Flask, SQLAlchemy, Python] — *May. 2020*
- Built a marketplace where users can rent and sell bare metal machines in EC528 Cloud Computing.
- Designed and built the auction engine and double-blind algorithm that matches up bids and offers.

Autonomous Vehicle: IOT Final Project [C, Node.js, Jquery, Raspberry Pi] — *Dec. 2019*
- Built an autonomous vehicle controlled by a web client through live video streamed with a Raspberry Pi.
- Can travel any course with stop and start signals from infrared beacons and decode a QR code "flag" at end.

Stardust: $12,000 Grand Prize Winner @ Capitol Royale [Django, React-Native, Swift, SDL] — *Nov. 2019*
- Built an AI Radio DJ that books parking & tickets, and curates music through sentiment analysis and location.
- Assembled application directly into Ford center display with a companion mobile interface for passengers.

Bikeable: Best Data Usability Award @ PennApps [Flask, GAE, Leaflet.js, Firebase, NumPy, jQuery, SQL] — *Sep. 2019*
- Created web application that generates safe bike paths in Boston from empirical accident data with routing algorithm.
- Applied heatmap visualizations using Kernel Density Estimation of theft data to denote danger hotspots for parking.

Relevant Skills

Languages: Python | C++| C | C# | Java | Matlab | SQL | Javascript | HTML/CSS
Frameworks/Technologies: Django | Flask | ASP.Net | Guice | React | React-Native | Latex | Git | Cucumber | Arduino
Relevant Coursework: Applied Algorithms | Probability | Linear Algebra | Cloud Computing | Machine Learning

Leadership

College of Engineering Student Body President Manage $20,000 budget to plan college-wide events for 1800 students.
Dean's Host & Lead Engineering Ambassador Lead prospective student events and give engaging tours to families.
Applied Algorithms Teaching Assistant Hold weekly office hours and grade homeworks/exams for 83 students.

Awards

DappHero Winner @ ETHLondonUK: Mar. 2020
Battlecode Top 16 US @ MIT: Jan. 2020
$12,000 Grand Prize @ Capitol Royale: Nov. 2019
Best Financial Hack @ HackHarvard: Oct. 2019
2nd Place @ JP Morgan Code for Good: Oct. 2019
1st Place @ Sonos Challenge: Oct. 2019
Best Data Usability Award @ PennApps: Sep. 2019
Grand Prize @ Google & NCAA Hackathon: Feb. 2019