ADITYA SINGH

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EDUCATION

Georgia Institute of Technology, Atlanta, GA   **Expected Graduation Date: May 2022**

Bachelor of Science, Computer Science   **GPA: 4.00**
Concentrations: Intelligence & Theory

WORK EXPERIENCE

Queues | GT InVenture Prize Winner   **August 2020 - Present**
Backend Developer
- Built REST API in Flask to handle mass amounts of livestreamed computer vision data
- Stored over 200k data points in InfluxDB to perform continuous analytical queries and updates
- Optimized backend response times by 70% after integrating Redis in-memory caching
- Implemented JSON tokenization to securely store/authorize mobile and web users in MongoDB

T-Mobile | Marketing DevOps Team   **June 2020 – August 2020**
Software Engineer Intern
- Built a full-stack application to assist DevOps Engineers in monitoring/resolving big data job workflows
- Optimized the job failure resolution process for Senior Engineers by 50% by transferring their daily logging responsibilities from an Excel Spreadsheet to an internally deployed web application
- Performed live updates by regularly scanning a REST API to provide insight on the status of over 1,000 job failures stored in a PostgreSQL Database

PROJECTS / RESEARCH

Live Feed Facial Recognition | Athena Robotics Team   **August 2020 - Present**
- Experimented with Local Binary Patterns (LBPH) model to perform basic edge detection on face images
- Trained Conv. Neural Net (CNN) with over 20,000 faces to accurately classify verified members of the laboratory
- Created a live feed video capture Python script (using OpenCV library) and integrated onto Jetson Nano

NFL Regular Season Winner Prediction Model   **October 2020 – December 2020**
- Web scraped 3 seasons of NFL regular season data and applied cleaning/standardization procedures
- Applied PCA to reduce the feature space by 50% while still retaining over 98% of original variance
- Experimented with supervised learning algorithms like LASSO Regression, SVM, and Random Forest to achieve roughly 80% accuracy

"ViewMarks" | Photo Sharing Mobile Application   **June 2020 – July 2020**
- Created (independently) a location-based photo sharing application allowing users to share aesthetic views from around the globe and rate other people's picture-based posts using React Native and Expo
- Implemented a backend REST API in Node.js to seamlessly upload mobile camera images to an AWS S3 Bucket and store post information on MongoDB

Named Entity Recognition | GT Undergraduate Research   **October 2019 - February 2020**
- Web scraped company 10-K files to extract relevant financial information with Selenium in Python
- Trained spaCy's NER (Named Entity Recognition) Model to identify novel company names from scraped text
- Developed an expansive Knowledge Graph to visualize the model's findings

SKILLS/TOOLS

Programming Languages:	Java, Python, C, SQL, JavaScript
Concepts/Coursework:	Machine Learning, Systems and Networks, Data Structures and Algorithms, Agile/Scrum, Web Development (Self-Taught), Android/iOS Development (Self-Taught)
Frameworks/Technologies:	Keras, Scikit-learn, Flask, Node.js, PostgreSQL, MongoDB, InfluxDB, Git, AWS, Redis