AJAY VIJAYAKUMAR

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Education

Georgia Institute of Technology   **Atlanta, Georgia**
B.S. in **Computer Science** (Artificial Intelligence & Information Internetworks)   *August 2018 – December 2021*
Study Abroad: GTL (Summer 2019) coursework supplemented with immersive travel across 10 European countries   **GPA: 4.0**

Experience

American Express   **Phoenix, Arizona (Remote)**
Software Engineer Intern | Payments   *July 2020 – August 2020*
- Ensured consistent performance for 63 million global card members across 5 markets by building 80+ reusable UI and API validation steps for 30+ user payment journey scenarios using **Cucumber.js** and **Selenium**
- Restructured regression testing architecture from **Java** to **JavaScript** to enhance code maintainability and testing scalability for the *Manage Your Card Account* page, impacting a team of 15 engineers
- Automated file conversion to alter 1000+ lines of use-case requirements using **Python**, saving 6 hours of manual entry

Humor Genome | Vertically Integrated Project   **Atlanta, Georgia**
Research Team Lead   *January 2019 – April 2020*
- Led team of 6 to develop comedic NLP algorithms by coordinating and executing multi-faceted project proposal
- Wrote status microservice endpoint using **Java Spring** and **MongoDB** to ensure user does not receive partial data
- Created feature metric using GloVe wordnet API and cosine distances to measure incongruity level of sentence
- Engineered **Python** scripts to classify 14 comedians and 30+ categories from 9,000+ jokes using LDA topic modeling and SVM models to better understand political humor
- Incorporated tf-idf vectorization into supervised algorithm to improve accuracy by 33% and address repeated phrases among comedians

Projects

you're a S.T.A.R.   **Atlanta, Georgia**
Personal Project   *Aug 2020 - Present*
- Built REST API to store and filter personal experiences for behavioral interview preparation using **Java Spring** and **MongoDB**

European Train Database System   **Metz, France**
Database Systems Project Member   *May 2019 – August 2019*
- Developed an EER diagram and schema to model train system using 10 entities, 35 attributes, and 6 relationships
- Implemented 7 stored procedures to optimize train routes, register/login users, and calculate costs using **MySQL**

Distance Teaching and Mobile Learning   **Atlanta, Georgia**
Project Member | Performance Prediction   *October 2018 – May 2019*
- Evaluated language proficiency metrics of 22 games used by 100,000+ elementary school children across 177 countries
- Generated Pearson correlations between 24 textual features to analyze trends in students' performances using **Python**
- Produced 10+ visualizations using **matplotlib** to illustrate relationships between student demographics and learning rates

Leadership

Alpha Kappa Psi (Professional Co-ed Business Fraternity)   **Atlanta, Georgia**
Athletics, Brotherhood, Corporate Sponsorship   *June 2019 – Present*
- Raised $700+ to finance organizational needs and initiatives by contacting 50+ companies for sponsorship opportunities
- Spearheaded 6 football tailgates and a 3v3 basketball tournament to inspire brotherhood and healthy lifestyles
- Coordinated an interactive social media platform designed to track and encourage 65+ brothers' workouts and diets
- Investigated 30+ rows of survey results regarding brothers' feedbacks to revamp weekly meetings' intentionality and affinity
- Organized 2-day weekend retreat for 30+ brothers using $300+ budget in a team of 4 to enhance inclusivity

Skills & Interests

Programming: Python, Java, JavaScript, HTML/CSS, C (intermediate), SQL (basic), jQuery (basic)
Technologies: Flask, MySQL, Selenium, Numpy, Pandas, Matplotlib, Git, ReactJS (basic)
Languages: English (native), Tamil (fluent), French (limited working proficiency)
Interests: Dream Journaling, Basketball, Martial Arts (2nd Degree Black Belt), Travel Photography, Reading, Fashion