Kaushik Vejju

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EDUCATION

University of Maryland, College Park August 2021 - May 2024
Bachelor of Science, Computer Science GPA: 3.967/4.0

- **Activities & Societies:** Smith Investment Fund, Alpha Kappa Psi Professional Business Fraternity, College Park Scholars
- **Relevant Coursework:** Data Structures, Algorithms, Programming Paradigms, Web Development, Computer Systems

TECHNICAL SKILLS

- **Languages:** Java, C, Python, Ruby, Golang, OCaml, JavaScript/TypeScript, HTML, CSS, Unix, SQL
- **Frameworks & Libraries:** Django, Angular, Spring Boot, Express, JUnit, pandas, NumPy, Matplotlib
- **Tools & Platforms:** Docker, Kubernetes, Gitlab CI/CD, Prometheus, Grafana, Postman, Node.js, MongoDB, Jira

EXPERIENCE

Zillow Group Inc. **Seattle, WA**
Software Development Engineer Intern *May 2023 – Present*

- Initiated the design and development of an SLO engine to be used by 50+ services by prototyping Gitlab CI/CD pipeline jobs to automate the generation and storage of Prometheus metrics based on developers' SLO specifications.
- Extended the functionality of an open-source SLO tool by implementing and dockerizing a Golang command-line interface to configure alert-based monitors and restructure Prometheus YAML files.
- Integrated the command-line interface in different services' pipelines and leveraged the Locust testing framework to demonstrate this tool's ability to produce valuable SLO insights under loads of 1000+ requests.
- Customized a Grafana dashboard to provide developers with 15 visualizations and insights for their service's SLO metrics.

Smith Investment Fund (SIF) **College Park, MD**
Infrastructure Engineer *October 2021 – Present*

- Collaborating with 3 students to coordinate the operations of SIF's Internal Tools vertical, an initiative responsible for creating technical platforms to optimize 20+ SIF members' productivity on research projects.
- Selected member (< 12% acceptance rate) of Quantitative Team, and completed an out-of-school, 10-week introductory Quantitative Finance training on concepts such as data science, market analysis, and investment basics.
- Researched and engineered a momentum-based alpha trading strategy with another analyst, and documented findings in a Jupyter Notebook that utilizes Python libraries (NumPy, pandas, Matplotlib) and SIF's backtesting infrastructure.

University of Maryland: Department of Computer Science **College Park, MD**
Undergraduate Teaching Assistant *August 2022 – January 2023*

- Evaluated 200+ students' performance on assignments and examinations in the Introduction to Computer Systems class.
- Hosted office hours 4 hours weekly to resolve students' technical issues during environment setup, provide guidance on projects, and clarify course topics such as C programming, dynamic memory allocation, and process control.

Prudential Financial **Newark, NJ**
Software Development Intern *June 2022 – August 2022*

- Contributed to an agile team by utilizing Angular to apply UI enhancements and provide functionality for a language toggle on Prudential's Disability Insurance Calculator, making 60+ phrases/sentences in the website accessible in Spanish.
- Designed and fully implemented a new RESTful microservice with Java Spring Boot, and defined endpoints in this service's API to respond to 100+ client-side requests from Postman and the Disability Insurance Calculator UI.
- Enabled microservice to interface with the Apache POI and JDBC APIs to read/write information from Excel files and call SQL stored procedures to insert 50+ user details into an Oracle Database.

PROJECTS

SIFSearch | Project Link **College Park, MD**
Django, Algolia Search API, InstantSearch.js, SQLite3, HTML, CSS, JavaScript *December 2022 – March 2023*

- Co-lead the development of a Django-based application that leverages Algolia's Search API to enable 20+ club members to upload and search for 70+ quantitative finance-related resources (links, PDFS, images) stored in a SQLite3 database.
- Introduced features such as tag-based search and providing users the flexibility to modify and delete their uploaded entries.

Student Dataset Analysis & Regression Model | Project Link **College Park, MD**
Jupyter Notebook, pandas, NumPy, Matplotlib, Scikit-learn, SciPy, plotly.py *March 2023*

- Performed an exploratory dataset analysis on student-related data to extract and generate optimal features for 3 regression models provided by the scikit-learn library (DecisionTreeRegressor, KNN, Linear Regression) to predict a student's GPA.
- Tested the models' accuracy using 10-fold cross-validation to calculate their respective mean-squared errors.

Prudential Hackathon: Annuities Page | **1st Place Prize** **Newark, NJ**
ReactJS, TypeScript, Python, HTML, CSS, AWS Cloud 9, Amazon S3 *August 2022*

- Built a single-page-application with ReactJS to display 5 years of annuity data from Excel files in an easily navigable manner.
- Implemented a Python script to output a JSON file from the annuity data, enabling the front-end code to present the appropriate metrics in the user interface based on the selection of an annuity product and asset group.
- Presented this project along with 2 interns to 20+ senior engineers, receiving constructive feedback and technical guidance.