Jasper Levy

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EDUCATION

Princeton University - Princeton, NJ **(Graduation:** Expected May 2024)

B.S.E. Candidate: *Computer Science*. Seeking a certificate (minor) in *Statistics and Machine Learning*

Activities: Princeton Varsity Men's Fencing Athlete - Division I (*1st Team All-Ivy 2022*), Princeton Data Science Club

Relevant Coursework:

Computer Science - Interdisciplinary Approach, Data Structures and Algorithms, Programming Systems, Multivariable Calculus and Linear Algebra, Statistics, Venture Capital and Finance, Foundations of ML, Reasoning about Computation, Advanced Programming Techniques, Computer System Design, Intro to Entrepreneurship

John F. Kennedy High School - Bellmore, NY **(Graduation: July 2020)**
Honors: NY State French Seal of Biliteracy, National AP Scholar, Advanced Regents Diploma
Activities: 2018 & 2019 Junior Men's Foil Team U.S.A. Travel Squad (Fencing). Trained 24 hours weekly, year round.

EXPERIENCE

***Innovative Defense Technologies* - Software Engineering Intern** (May 2022 - August 2022)

- Helped to develop a network analysis web app using Apache Kafka, React.js, Node.js, and other technologies.
- Enhanced user experience and user interface with specially tailored Plotly.js configurations.

***Princeton Dept. of African American Studies* - Data Lab Research Associate** (June 2022 - August 2022)

- Conducted research on NYC public broadband prevalence and quality disparities by income using statistical analysis in R and Python as well as data visualization with Tableau.
- Presented findings at the 2022 Civics of Technology annual conference.

***Engineers Without Borders Kenya* - Princeton University Chapter** (Fall 2020 - Spring 2022)

- Worked to research, develop, and implement clean water distribution systems for communities in Kenya.
- Planned for construction of boreholes and developed solutions for filtering Iron and biological agents from water.

PROJECTS

Software Development:

- *VitalMap* (***JavaScript, Python***) **-** PWA for Princeton Students. Map with locations and stock of health products. This three-tiered Web-App involves databasing in Python, creating Flask routes for users to communicate with a PostgreSQL database, and UI/UX development using JavaScript and Bootstrap. (https://vitalmap.onrender.com/)
- *Object Relational Mapping with SQL Queries (**Golang**)*: Used Golang Interfaces and the Golang "reflect" package to allow clients to communicate with SQL databases through Go structs while abstracting schema and table architecture (which were determined at runtime using reflection).
- *Percolation (**Java**)*: Estimated a percolation threshold via Monte Carlo simulation using a union find with two APIs.
- *File tree (**C**)*: Implementing a File Tree abstract object interface which is used in all computer OS's (A tree with nodes for files and directories, and dynamically expanding arrays).
- *Seam Carver (**Java**):* API for image resizing technique using Dijkstra's shortest path algorithm in a digraph of pixels.

Data Analysis:

- *CDC Behavior Risk Factor Surveillance System:* I studied how occupations are related to BMI (data visualization and model creation) and created a regression model to predict BMI given a person's occupation using CDC data.
- *Analysis of Polling Error in 2016 election*: I created a simulation to determine whether polling errors were feasibly random and by chance. I concluded that there is significant poll error that cannot be attributed to random error.
- Independent Research: Analyzing Spotify's genre classification algorithm using random forest, K-means and t-SNE

SKILLS

Technologies: Java, JavaScript, Python, C#, R, SQLite, PostgreSQL, Go, HTML/CSS, Flask, Git, React.js**,** Node.js, Tableau, Unix, VMware
***Concepts*:** Agile/Waterfall development, Multithreading, Reflection, Convolutional Neural Networks, Clustering, Statistical Analysis