Vetrie Senthilkumar

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EDUCATION

University of Illinois at Urbana-Champaign   August 2017 - December 2020
Bachelor of Science in Computer Science and Statistics   **GPA: 3.88/4.00**
- *Relevant Coursework*: Algorithms, Data Structures, Applied Machine Learning, System Programming, Database Systems, Distributed Systems, Data Mining, Applied Regression, Statistical Computing, Numerical Methods
- *Distinctions and Honors*: James Scholar, Dean's List

PROFESSIONAL EXPERIENCE

Jump Trading – Software Engineering Intern (Chicago, IL)   June 2020 – Present
- Constructed ETL pipeline to process complex timeseries data for futures and equities across European exchanges
- Cleaned, parsed, and performed NLP analysis on Edgar FWP forms to provide insights on corporate bond offerings
- Analyzed impact of Edgar 8-K filings on a security's price movement and volatility

General Electric Aviation – Data Engineering and Analytics Intern (Cincinnati, OH)   May 2019 – August 2019
- Utilized Python to fully automate, optimize, and link several ETL processes involving GE's military data lake
- Developed a JavaScript webpage visualizing military aircrafts' status by analyzing engine data queried from SQL
- Improved production data quality by automating testing of tools used to decrypt confidential military files
- Won Impact Award from GE Corporate for improving ingestion rate of flight engine statistics by 25x

CareVoyant Inc. – Software Engineering Intern (Schaumburg, IL)   June 2018 – August 2018
- Built a Python utility that converts various Electronic Health Records (EHR) such as physician notes, patient assessments, care plans from different data formats to PDF
- Leveraged text parsing, SQL, and ReportLab to generate customizable PDFs 4x faster than previous software

PROJECTS

Spotify Explore
- Developed a Spotify API integrated webapp that analyzes users' listening preferences to suggest song recommendations and create data visualizations, including a similarity graph of favorite artists
- Built with Django, employs MySQL for storing listening data, and constructs similarity graph using Neo4j

Algorithmic Trading
- Using machine learning to research trading strategies involving candlesticks, technical indicators, and news events
- Optimized data mining and feature engineering using Pandas and NumPy vectorization and Python multiprocessing

UIUC Course Data Explorer *(2018 Data Visualization Competition 2nd Place)*
- Designed an award-winning interactive website used by **1000+** students to explore grade distribution data for courses, professors, general education categories, and majors

Chicago Crime Analysis
- Created an interactive R Shiny web app containing a Leaflet map of Chicago with crime markers, time series graphs for different types of crime, and crime statistics charts per each of Chicago's districts built with Plotly and ggplot2

LEADERSHIP EXPERIENCE

Vice President of Sports Analytics Society   January 2018 - Present
- Organized and supervised group projects and presented technical workshops on data analysis in R and Python

Corporate Outreach Officer of Illini Statistics Club   September 2018 – Present
- Oversaw logistics and planning for Illini Datathon, the largest data science event on campus with **250+** students

TECHNICAL SKILLS

Programming Languages: Python, C, C++, Java, SQL, JavaScript, R, MIPS Assembly, HTML/CSS
Technologies: React.js, Django, Pandas, NumPy, R Shiny, MongoDB, Neo4j, ReportLab, openFrameworks, Git, Linux