PRANAV AHLUWALIA

972-345-1701

DETAILS

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LINKS

Portfolio

Blog

Linkedin

GitHub

SKILLS

Machine Learning

Probability & Statistics

Java

R

SQL

Python

C++

EDUCATION

MS Applied Mathematics, Northeastern University, Boston
September 2021 — May 2023

- GPA: 4.0
- Courses: Probability I, Statistical Learning

BS Computer Science and Math, Northeastern University, Boston
September 2017 — May 2022

- Courses: AI, Algorithms, Stochastic Processes, Linear Algebra, Calc III, Real Analysis

EMPLOYMENT HISTORY

Software Engineer Co-op at AcadiaSoft, Norwell, MA
September 2020 — December 2020

- Software infrastructure for margin call analytics platform
- Automated merges on financial data dealing with peer metrics/exposure/risk
- Optimized data loading processes to boost client-side performance (**SQL**, **Python**)

Software Engineer Intern at Dell Technologies, Hopkinton, MA
June 2020 — July 2020

- Constructed an internal threat intelligence platform using **Python** and **Flask**
- Integrated 3 data pipelines to map emerging vulnerabilities to asset exposure
- Designed a dashboard of 4 interactive visualizations to aid in threat remediation

Research Mentorship Program at UCSB Statistics Dept, Santa Barbara, CA
June 2016 — July 2021

- Co-Authored research paper on ARIMA based trading strategies

Cyber Security Co-op at MITRE, Bedford, MA
July 2019 — December 2021

- Developed command line parsing software for large-scale server-log analysis
- Optimized **Kibana dashboards** for forensic analysis of network activity

Cyber Security Intern at MITRE, Bedford, MA
May 2018 — August 2018

- Developed an interactive visualization suite to process live radar signal data
- Performed **cluster analysis** on 500,000 binaries

PROJECTS

Volatility Index Markov Model

- Designed a markov chain model to simulate the Volatility Index (VIX)

Greenhouse Harvest Prediction

- Developed a **kernel ridge regression** model to predict rose harvests

Monte Carlo Options Pricer

- Monte carlo options pricer for vanilla call option using black-scholes (**Python**)