Paul Boehringer

Cambridge, Massachusetts

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EDUCATION

Stanford University   **Stanford, CA**

M.S. in Statistics – Focus on Machine Learning & Artificial Intelligence   GPA: 3.6 – *Class of 2021*

Pennsylvania State University – Schreyer Honors College   **University Park, PA**

B.S. in Industrial Engineering – Math Minor   GPA: 3.9 – *Class of 2019*

PROFESSIONAL EXPERIENCES & INVOLVEMENT

leadx.io – Software Engineer   **Cambridge, MA**

Full-stack engineer responsible for live product systems at early-stage startup   *2023 – current*

- Designed PostgreSQL databases powering real-time lead discovery and ranking
- Built user-facing API layer enabling seamless access to LeadX's core search engine
- Developed LLM-powered scoring model to rank and prioritize high-quality B2B leads
- Defined CI/CD workflows and monitoring standards for production-grade infrastructure

SparkCognition AI Solutions – Software Engineer   **Austin, TX**

Built production ML pipelines and data systems for AI in financial markets   *2022 – 2023*

- Built exchange data pipeline using ClickHouse and Databricks to unify market data APIs
- Increased blockchain history processing speed 10x via an Apache Spark implementation
- Deployed PyTorch-based LLM pipeline enabling real-time chatbot interaction and context handling
    - Designed scrapers to collect and preprocess social media data for chatbot training

Algos Algorithmic – Co-Founder & Data Scientist   **Philadelphia, PA**

Developed ML-driven crypto trading systems   *2021 – 2022*

- Sample code available via public *algos* repository
- Created Decentralized Exchange arbitrage directly interacting with exchange smart contracts
- Implemented data pipeline and engineering for collection, management, analysis, and ordering on four exchanges
- Reacquired full IP rights following wind-down of SparkCognition's financial division

Balyasny Asset Management – Data Intelligence Group Intern   **Chicago, IL**

Merged two back testers enabling seamless comparisons for portfolio managers   *Summer 2020*

- Developed a modular backtesting framework for evaluating ML-driven investment signals
- Refactored backtesting pipeline to handle invalid inputs and improve response reliability
- Enhanced the backtest process, achieving a 100x speed increase for several frequently-requested metrics

Deloitte Consulting – Technology Intern   **Pittsburgh, PA**

Strategy and Analytics Consultant for a Medicare data processing project   *Summer 2018*

- Created Tableau dashboards from client requests to gain specific insights using scheduled SQL queries
- Wrote ad hoc SQL and stored procedures for the State of Kentucky's integrated eligibility program
- Contributed standard operating procedures for Deloitte's Big Data Solutions Playbook

An Insiders Edge – Undergraduate Thesis for Penn State   **State College, PA**

Historical analysis of insider trading on the New York Stock Exchange   *2018*

- Scraped 10+ million insider trades for 5,400 companies from the Security Exchange Commission's website
- Built predictive model for returns based on features of past trades and company's financial state at the time

News Reliability Research Sponsored by Booz Allen Hamilton – Academia Research   **State College, PA**

Built a natural language processing (NLP) algorithm to predict a reputation rating for new pieces   *Spring 2018*

- Tokenized articles, processed them, and built a language model to output reliability of an article
- Created a Google Chrome extension to display the trust score of articles on webpages
- 3rd place at Penn State College of Engineering capstone showcase out of 300+ projects

Financial Network Failure Propagation Research   —   Academia Research   State College, PA
Investigated how financial network structure plays a role in an organization's risk of bankruptcy   *Spring 2018*
- Researched and implemented stochastic processes on various types of financial networks
- Modeled historical financial crises in R to find liability structures which could have prevented cascades

Penn State Manufacturing Consulting — for The National Oil Varco   State College, PA & Houston, TX
Deepwater Horizon Gulf Oil Spill Blow Out Preventer Failure – Manufacturing Process Improvement   *Summer 2017*
- Contributed to post-incident compliance documentation mapping process improvements
- Analyzed production data to change fabrication methods and routing in order to lower manufacturing rework
- Designed executive-level infographics explaining BOP system , weak points, and risk mitigation strategies

Wayne Automation Corporation   Norristown, PA
Automate manufacturing and supply chain processes   *Summer 2015 & 2016*
- Implemented new automated iOS based inventory system to speed up part picking process
- Developed new machine accountability system for customer maintenance and warranty tracking
- Redesigned assemblies welded to machines to replace them with bolted connections

FIRST FRC Team 1218 Vulcan Robotics — Student and Alumni Volunteer   Philadelphia, PA
Focused on mechanical and computer aided design of robots (not software for once)   *2012 - 2021*
- Team Captain (2014 & 2015)
- Top 10 at FRC at World Championship (2014 & 2015)
- Corporate sponsor liaison for all supporters such as Boeing, Vulcan Springs, TE Connectivity, & NASA (2013 – 2015)
- Volunteer as a team mentor and event volunteer (2016 – 2021)

SKILLS

- Python
- Go / Golang
- Databricks
- NLP / LLMs

- ETL / data pipelines
- Hadoop / Apache Spark
- AWS / Azure / GCP
- Smart Contracts (Solidity & Pact)

- PyTorch
- SQL
- Git
- ClickHouse

- Docker / Kubernetes
- Linux Admin
- Blockchain
- APIs / Websockets