PAUL BOEHRINGER

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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

SparkCognition Artificial Intelligence Solutions − Software Engineer   **Austin, TX**
Software engineer and data scientist creating production machine learning systems   *2022 − 2023*

- Built centralized exchange data collection with ClickHouse and Databricks for unified market API
- Boosted blockchain history processing speed by an order of magnitude with Apache Spark implementation
- Created and deployed interaction pipeline for PyTorch LLM based chatbot
  - Designed and documented social media scrapers for chatbot training data
  - Chatbot analyzed live social media feeds using LLMs to monitor sentiment regarding exchange solvency

Algos Algorithmic − Co-Founder & Data Scientist   **Philadelphia, PA**
Created proprietary neural network based trading algorithm   *2021 − 2022*

- Samples are publicly available in the *[algos](#)* repository on my personal GitHub account
- 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 complete rights following SparkCognition's discontinuation of its financial services

Balyasny Asset Management − Data Intelligence Group Intern   **Chicago, IL**
Merged two back testers enabling seamless comparisons for portfolio managers   *Summer 2020*

- Created signal research back testing guide for testing new machine learning based portfolios
- Established data pipeline for back testing and refactored to deliver optimized responses to invalid requests
- 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*

- 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

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

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*

- Modeled historical financial crises via adjacency matrices to identify liability structures for future risk mitigation

FIRST FRC Team 1218 Vulcan Robotics   **Philadelphia, PA**
Volunteer mentor for 2018 world champion's mechanical and computer aided design teams   *2012 – present*

- Placed 7th in 2014 and 5th in 2015 at FRC at World Championship while high school team captain

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