

Brett Finkelstein

610-945-6633 | brettfinkelstein1@gmail.com | [linkedin.com/in/brettfinkelstein1](https://www.linkedin.com/in/brettfinkelstein1) | Philadelphia, PA

EXPERIENCE

Chubb Insurance

Philadelphia, PA

Software Engineer III

Mar. 2026 – Present

- Led **Signal+** development using **Python**, **Databricks**, and **Snowflake**, automating ingestion, transformation, and model monitoring workflows to detect data drift and track loss, reducing monitoring timelines from months to weeks.
- Created and designed the **Account Data Strategy** pipeline in **Databricks**, architecting scalable ingestion and standardization workflows for massive brokerage datasets by stamping records with industry and Chubb-known identifiers to enable governed, enterprise-wide downstream consumption in **Snowflake**.
- Building **Smart Mapper**, an AI-agent driven workflow that maps agency book-of-business columns to the **Account Data Strategy** standard and persists approved mappings to **Snowflake**, reducing a manual hours-long process to minutes.

Software Engineer II

Apr. 2024 – Mar. 2026

- Led frontend development of **GenAI**-powered web applications for regulatory analysis using **Angular**, **TypeScript**, and **Node.js**, while also contributing to backend **FastAPI** services, owning the **RAG pipeline** frontend and streamlining workflow efficiency across business units, earning a **global recognition award**.
- Deployed and managed application services with **Kubernetes (K8s)** to ensure scalability, reliability, and rapid iteration.
- Modernized the **ChubbIQ** project by automating agency data ingestion and lead generation with Databricks (**PySpark**, **SQL**, **Azure Data Lake**), replacing manual Excel workflows with version-controlled processes and reducing new agency onboarding time by 70%.
- Analyzed underwriter-agent communications with SQL to surface actionable relationship insights, directly influencing business strategy and earning a **global innovation award**.

The Vanguard Group

Malvern, PA

Software Engineer II

Sep. 2022 – Apr. 2024

- Modernized a **Python**, **Flask**, and **JavaScript** web application into a centralized **AWS** job management platform, enabling researchers to launch, monitor, and debug data jobs through the UI.
- Built and managed **AWS SageMaker** pipelines for ML and NLP models including **Word2Vec**, **Doc2Vec**, and a custom **BERT** model trained on SEC filings and Earnings Call Transcripts. unlocking spoken-word analysis as a new investment signal for QEG beyond traditional quantitative methods
- Collaborated with traders to engineer a live financial analysis tool in Python, integrating **OneTick** market data to deliver **real-time** global market insights.

Software Engineer I

Jun. 2021 – Sep. 2022

- Designed and deployed **Portfolio Analyzer**, a Flask web application on **AWS ECS** that gave research and portfolio managers a centralized platform to compare stocks across data sources. contributing to millions of dollars of **Alpha**.
- Engineered an automated data pipeline using **AWS Lambda**, **SQS**, and **DynamoDB** to stream **Federal Reserve Economic Data (FRED)** directly to Quantitative Equity Group (QEG) researchers, accelerating the development of new performance analysis models.
- Led the upgrade of research and production systems to a higher **Python** version, including package updates and compatibility fixes across team workflows.

EDUCATION

University of Massachusetts Amherst

Amherst, MA

Bachelor of Science in Computer Science

TECHNICAL SKILLS

Languages: Python, TypeScript, Java, JavaScript, NodeJS, SQL

Cloud & DevOps: AWS, Azure, Docker, Jenkins, Kubernetes, Git

Frameworks & Libraries: Angular, Flask, FastAPI, React, Plotly, Hugging Face, Gensim, PySpark

Databases & Data Platforms: Snowflake, PostgreSQL, SSMS, Databricks, Azure Data Lake, DynamoDB

Other: AI Productivity Tools