

Alex Haynes

Software Engineer
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Experience

Two Sigma Insurance Quantified Aug 2019 - Present

Team: Data Services - Software Engineer Sep 2021 - Present

- Developed scalable data ETL pipelines for third-party service integrations, ingesting ~1 tb of monthly vendor data.
- Executed ad hoc, product-focused web development across the stack; implemented full stack features to drive user engagement.
- Developed permissioned access system for users to share data across enterprise tenants & with unregistered users.
- Integrated with OpenAI API for unstructured data extraction.

Team: Product Platform - Software Engineer Aug 2019 - Sep 2021

- Developed a statically-typed, purely functional DSL for modeling insurance products & computations as a dependency graph compiled into protobufs. Developed language features & execution environment for compiled products, built with Kubernetes.

Ethereum Foundation Feb 2019 - Jul 2019

Development Grant Recipient - py-libp2p

- Built the Python implementation of libp2p, a peer to peer networking library from Protocol Labs. py-libp2p is currently used in all major Python ETH2.0 clients.
- Development efforts were directly funded by the Ethereum Foundation Grants Program.

University of Pennsylvania Aug 2016 - May 2019

Teaching Assistant

- CIS 240 Computer Systems (Intro C & Circuits), CIS 331 Networks & Security, CIS 380 Operating Systems, CIS 548 Operating Systems (Graduate Level)

Two Sigma Summer 2018

Team: Legal and Compliance Engineering - Intern

- Developed ETL pipelines to monitor the firm's live trading feed for anomalies that could indicate illegal activity within the firm. This was used to power a forensic analysis tool used by the legal team, and interfaced directly with end users to develop the project to fit their needs.

Slack Summer 2017

Team: Accessibility, Front End Engineering - Intern

- Unified the system for defining & managing keyboard shortcuts within the Slack desktop and web apps. Developed new settings page that allowed for custom keyboard shortcuts & profile switching.

Education

University of Pennsylvania

BSE in Computer Science 2019

- Triple Minor:
Math, Data Science, Fine Arts
- Magna Cum Laude
- Dean's List 2017-2019
- IEE Eta Kappa Nu Honors Society

Skills

Languages

Python, Typescript, Javascript, Java, C, SQL, Haskell, Kotlin

Libraries & Technologies

GraphQL, React, Flask, Redis, Kubernetes, Spark, Pandas, Redshift, MongoDB, Terraform

AWS

Athena, Glue, Step Function, Lambda, SES, EKS, IAM

Interests

Fashion • Skiing • Photography • Hiking • web3 • Ancient Rome