Timothy K. Paine

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Experience

Present
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Feb 2022

Point72

Central Research Team - Cubist Systematic Strategies
- Building out centralized technology, research, and trading teams
- From infrastructure to UI across all asset classes and teams

Present
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May 2015

Columbia University

Associate in Computer Science (Faculty)
- Courses include languages, algorithms and data structures, systems, and software engineering

Dec 2021
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Nov 2020

IEX

Head of Software Engineering - Cloud
- Established engineering best practices on a rapid growth team
- Overhauled all aspects of the software development lifecycle
- Led feature developments for existing and new product verticals

Nov 2020
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Mar 2016

J.P. Morgan

Vice President - Athena Core
- Led development of a cloud research environment for ~1500 developers, quants, and traders
- Developed high performance applications for real time post trade analytics
- Overhauled core systems, components, and processes for development and integrations

Jan 2016
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Jul 2015

MayStreet

Software Engineer
- Developed low latency market data and order entry systems for equity and options exchanges

Education

Columbia University

B.A. Computer Science/Mathematics
B.S. Computer Engineering Magna Cum Laude
M.S. Computer Engineering
All degrees completed concurrently

Projects

Helped established OSS organizations at J.P. Morgan and Point72, contributor/maintainer of many large scale open source projects.

Publications

Q100: The Architecture and Design of a Database Processing Unit
L.Wu, A. Lottarini, T. Paine, M. Kim, K.Ross
ASPLOS 2014: Nineteenth International Conference on Architecture Support for Programming Languages and Operating Systems. **IEEE Micro Top Pick**.

Media

FPGA-Based Machine Learning Accelerators | PyCon US '24

Jupyter Notebooks for Print Media | PyCon DE '24

High Performance Data Visualization | PyCon DE '24, PyCon IT '24, PyData Paris '24

Streaming Cross-sectional Data Visualization with Perspective | Databricks Data + AI '24

Visualizing Live Data Pipelines | JupyterCon '23

Production Notebooks | JupyterCon '20

Beyond Spreadsheets | NYC Data Council '20

JPMorgan's requirement for new staff: coding lessons | Financial Times

JPMorgan's Python training guide for analytics and traders | efinancialcareers