

Andy Xiao

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Education

University of Pennsylvania — School of Engineering & Applied Science Philadelphia, PA
Bachelor of Applied Science (BAS) in Computer Science December 2022
○ Minor: Statistics [Wharton] 3.83/4.00
○ Coursework: Internet & Distributed Web Systems, Networked Systems, Compilers, Machine Learning, Algorithms, Databases, Computer Organization & Design, Advanced Functional Programming, Big Data Analytics, Software Engineering, Computer Graphics, Computer Architecture, Probability, Statistical Inference, Time Series Analysis, Bayesian Statistics

Professional Experience

Hudson River Trading, *Incoming Algorithm Engineer Intern*, New York, NY Summer 2022
Tesla, *Software Engineer Intern*, Palo Alto, CA August 2021 – Present
○ Energy Device Software Team
○ Go, TypeScript, React
Akuna Capital, *Quantitative Developer Intern*, Chicago, IL June 2021 – August 2021
○ Analyzed the impact of news on equity markets and used results for predictive modeling
○ Implemented a new exchange latency dataset generator to better understand the order lifecycle
LinkedIn, *UI Engineer Intern*, Sunnyvale, CA May 2020 – August 2020
○ Led the frontend implementation of a new insight card feature on LinkedIn's Sales Navigator homepage with Ember.js
○ Aimed to drive deeper user engagement on the homepage by providing insightful and actionable information to the user
CIS 197 (JavaScript), *Teaching Assistant*, Philadelphia, PA (seas.upenn.edu/~cis197) August 2020 – May 2021
○ Student taught mini-course focused on teaching modern JavaScript; Covered Node.js, Express, React, Redux, and MongoDB
○ Hosted weekly office hours, developed and refactored homeworks, and graded JavaScript programming assignments
CIS 502 (Analysis of Algorithms), *Teaching Assistant*, Philadelphia, PA January 2020 – May 2020
○ Graduate level algorithms course of 120 students; hosted weekly office hours; graded homeworks and exams
○ Covered greedy algorithms, dynamic programming, graph traversals, max flow, NP-completeness, and approx. algorithms
Multifamily Asset Managers, *Software Engineer Intern*, Bethesda, MD May 2019 – August 2019
○ Architected multiple property management pages along with a CRUD REST API in React and .NET
○ Created an advanced form builder component in React, greatly increasing development speed and maintainability
University of Pennsylvania, *Web Developer*, Philadelphia, PA (pathways.history.upenn.edu) April 2019 – November 2019
○ Developed and designed an interactive course selection web app called "Pathways" for Penn's History Department
○ Worked with another developer to build out functionality, including a Pinterest style layout and a course visualization network

Projects

Mini Google (Java, AWS, Scala) | (github.com/andyxiao1/mini-google)
○ Architected and implemented a search engine based on Google's architecture circa 1997
○ Led the development of the web crawler component, indexing over a million web pages on 8 EC2 instances at over 20 pages per second
TCP Chat Server (Haskell, Brick) | (github.com/andyxiao1/tcp-chat-server)
○ Slack-like chat server with rooms and threads built from the socket level using concurrent threads in Haskell
○ Utilized the STM monad with transactional channels and variables to share data and communicate across server threads
○ Abstracted pure functions away from IO to effectively test and created a client-side terminal UI with Brick
Shared Paper (React Native, Node.js, Socket.io, MongoDB) | (github.com/andyxiao1/shared-paper)
○ Shared Paper is a note taking app developed at Bitcamp 2019 which allows multiple users to take notes together in real time
○ Architected entire React Native mobile app with full featured drawing canvas, user sign-up/login, and document sharing
○ Spearheaded group of 4 developers to integrate mobile app with backend, using Socket.io for real time updates

Skills

○ **Languages**: Python, TypeScript/JavaScript, Go, Java, C++, Haskell, R, C#, HTML/CSS
○ **Technologies**: Pandas, React, Ember.js, Node.js, .NET, Spark, MongoDB, SQL, Git