Andy Xiao

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Education

University of Pennsylvania — School of Engineering & Applied Science **Bachelor of Science in Engineering** (BSE) in **Computer Science**

Philadelphia, PA

May 2022

o Minors: Statistics [Wharton] & Engineering Entrepreneurship

3.79/4.00

o <u>Coursework</u>: Computer Graphics, Advanced Functional Programming, Algorithms, Big Data Analytics, Software Engineering, Databases, Computer Architecture, Probability, Statistical Inference, Time Series Analysis

Professional Experience

Akuna Capital, Incoming Quantitative Development Intern, Chicago, IL

Summer 2021

o Market Microstructure Team

LinkedIn, <u>UI Engineer Intern</u>, Sunnyvale, CA

May 2020 - August 2020

- o Led the frontend implementation of a new insight card feature on LinkedIn's Sales Navigator homepage
- o Aimed to drive deeper user engagement on the homepage by providing insightful and actionable information to the user
- o Ember.js, JavaScript

CIS 197 (JavaScript), Teaching Assistant, Philadelphia, PA (seas.upenn.edu/~cis197)

August 2020 - Present

- o Student taught mini-course focused on teaching modern JavaScript; Covers Node.js, Express, React, Redux, MongoDB, and server-side rendering
- o Host weekly office hours, develop and refactor homeworks, and grade JavaScript programming assignments

CIS 502 (Analysis of Algorithms), Teaching Assistant, Philadelphia, PA

January 2020 - May 2020

- o Graduate level algorithms course of 120 students; covers greedy algorithms, dynamic programming, graph traversals, max flow, NP-completeness, and approximation algorithms
- o Hosted weekly office hours; graded homeworks and exams

Multifamily Asset Managers, <u>Software Engineer Intern</u>, Bethesda, MD

May 2019 - August 2019

- Architected multiple property management pages along with a CRUD REST API in React and .NET
- o Created an advanced form builder component in React, greatly increasing development speed and maintainability
- o Converted pages from jQuery to React and refactored backend to fetch data more efficiently, decreasing page load times by more than half
- o React, JavaScript, .NET, C#, MSSQL

University of Pennsylvania, Web Developer, Philadelphia, PA (pathways.history.upenn.edu)

April 2019 - January 2020

- o Developed and designed an interactive course selection web app called "Pathways" for Penn's History Department
- o Worked with another developer to build out full functionality, including a Pinterest style layout, animations, a course visualization network, and site walkthrough capabilities
- o React, Redux, JavaScript

Projects

TCP Chat Server (Haskell, Brick) | (<u>aithub.com/andyxiao1/tcp-chat-server</u>)

- o Slack-like chat server with rooms and threads built from the socket level using concurrent threads in Haskell
- o Utilized the STM monad with transactional channels and variables to share data and communicate across server threads
- o 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) | (qithub.com/andyxiao1/shared-paper)

- o Shared Paper is a note taking app developed at Bitcamp 2019 which allows multiple users to take notes together in real time
- o Architected entire React Native mobile app with full featured drawing canvas, user sign-up/login, and document sharing
- o Spearheaded group of 4 developers to integrate mobile app with backend, using Socket.io for real time updates

Penn Course Scheduler (React, Node.js, Express) | (github.com/andyxiao1/penn-course-scheduler)

- o Penn Course Scheduler is web app that allows Penn students to see all possible schedules for the courses they want to take
- o Implemented an API to perform a DFS traversal and return all valid schedules and created a UI to search and show schedules

Skills

- o Languages: JavaScript, Python, Java, C++, Haskell, R, C#, HTML/CSS
- o Technologies: React, Ember.js, Node.js, Flask, .NET, Pandas, Spark, MongoDB, SQL, Git