Andy Xiao

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Education

University of Pennsylvania — School of Engineering & Applied Science   Philadelphia, PA
Bachelor of Science in Engineering (BSE) in **Computer Science**   May 2022
o <u>Minors</u>: 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, _UI Engineer Intern_, 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, _Software Engineer Intern_, Bethesda, MD   May 2019 – August 2019
o 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) | (_In Progress_)
o Slack-like chat server with rooms, threads, and reactions 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 with QuickCheck and created a client-side terminal UI with Brick

Shared Paper (React Native, Node.js, Socket.io, MongoDB) | (_github.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