Kevin Chen

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EDUCATION

University of Pennsylvania - School of Engineering & Applied Science | Philadelphia, PA

May 2023

Bachelor of Science in Engineering, Computer Science | *Concentration*: Software Foundations | *Minor*: Statistics Cumulative GPA: 3.96/4.00

• Relevant Coursework: Data Structures & Algorithms, Software Engineering, Mathematical Foundations of Computer Science, Big Data Analytics, Probability, Scalable & Cloud Computing, Computer Systems, Statistical Inference

TECHNICAL SKILLS

- Programming Languages: Java, Python, C#, C, JavaScript, TypeScript, SQL, HTML, CSS
- Tools and Libraries: Node.js, Express, Angular, Android Studio, .NET, Django REST framework, SQL Server, Firebase, MongoDB, Apache Spark, AWS, pandas, JUnit, Git, Azure DevOps Server
- Additional: Agile SDLC, Software Design Patterns, LaTeX

EXPERIENCE

Penn Labs, Backend Engineer | Philadelphia, PA

Sept 2020 - Present

- Develop technology to connect 16k+ students with resources and data to improve academic and campus life at Penn
- Build backend for OHQ, an online office hours system serving 2,700+ active users, with Django REST framework
- Redesign and rewrite old Flask backend for Penn Mobile using Django REST framework to increase dev. productivity

WEX Inc., Software Engineering Intern | Minneapolis, MN

June 2020 - Present

- Build (full-time summer/part-time school yr.) secure, distributed, multi-tiered web apps and analytics dashboards for WEX Health Cloud platform, used by 17M+, in Agile setting as part of 15-person team of developers, QAs, and BAs
- Drive development of new healthcare data dashboards by writing client-side Angular code and server-side C# code
 - o Master new technologies, build proofs of concept, and design system architecture with other engineers
 - o Write efficient ASP.NET code using MVC pattern to calculate complex metrics and respond to frontend filters
- Create dashboard builder to allow admin to personalize dashboard layout and deliver unique insights to each employer
- Train new interns by reviewing codebase, outlining schema of relational databases, and describing system architecture

Penn Electric Racing, Software Engineer | Philadelphia, PA

Sept 2019 - May 2020

- Used Gazebo and Python to create simulation for cone recognition during autonomous driving
- Built Vue.js GUI that provides easy-to-use and customizable interface for displaying graphs and sensor data from car

Penn Aerospace Club, Software Engineer | Philadelphia, PA

Sept 2019 – May 2020

• Developed "mission control" web application and REST API web service using Node.js and Express for tracking and storing data on position, path, and speed over time for high-altitude balloon flights

PROJECTS

PennBook

Nov 2020 – Dec 2020

- Created scalable, cloud-based social network platform built on top of AWS (DynamoDB, EC2) with Node is and EJS
- Wrote adsorption algorithm with Spark on EMR to periodically generate news recommendations by REST call to Livy
- Built persistent socket-based private and group chats, social network graph visualizer, and pages with infinite scrolling

OurStatus

May 2020 - Aug 2020

- Built cross-platform (Web/Mobile/Firebase) productivity app that combines social media and task management
- Used RxJS and AngularFire libraries to create asynchronous and event-based Angular web app hosted with AWS S3
- Designed NoSQL database structure and cloud functions to run serverless backend code managing data consistency
- Implemented cookie-based authentication, session state with NgRx redux, and friend recommendation with heuristics

Penn Lost & Found

Feb 2020 - May 2020

- Developed app where users can post lost or found items on campus and communicate with other users in real-time
- Built complex software system comprised of mobile app made with Java and Android Studio, web administrator app made with HTML and JavaScript, and server-side application made with Node.js, Express, and MongoDB
- Implemented user accounts, live messaging, feeds for postings, admin account monitoring, warnings/ban, and more

Algorithmic Trading Bot

Dec 2019 – Jan 202

- Wrote algorithmic trading bot in Python/pandas using Bollinger Bands, Relative Strength Index, and linear regression
- Automated trades and monitored account status by using HTTP requests and JSON objects with Alpaca API
- Collected and stored over 10,000 data points daily in SQL database for future testing and algorithm refinement