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**: Angular, Express, Node.js, 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 25k+ 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

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
  - Master new technologies, build proofs of concept, and design system architecture with other engineers
  - Write efficient ASP.NET code using MVC pattern to calculate complex metrics and respond to frontend filters
- Create XML-based designer with hierarchical override in admin portal to control layout of employers' dashboards
- 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 – Present***

- Create scalable, cloud-based social network platform built on top of AWS (DynamoDB, EC2) with Node.js and EJS
- Write adsorption algorithm with Spark on EMR for news recommendations periodically invoked by REST call to Livy
- Build 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 2020***

- 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