Kevin Chen

952-232-7743 | kevc528@seas.upenn.edu | GitHub: kevc528

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: 3.92/4.00
Relevant Coursework: Data Structures & Algorithms, Software Design & Engineering, Programming Languages & Techniques, Big Data Analytics, Mathematical Foundations of Computer Science, Python Programming, Probability

University of Minnesota - **Twin Cities (High School Program)**, *Minneapolis, MN* *Sept 2015 – May 2018*
University of Minnesota Talented Youth Math Program (UMTYMP)
Relevant Coursework: Calculus I, II, & III

TECHNICAL SKILLS

- **Programming Languages**: Java, Python, JavaScript, SQL, OCaml, C++
- **Tools and Libraries**: Git, Android Studio, Node.js, Vue.js, Flask, Django, MongoDB, Apache Spark, Pandas, NumPy, Beautiful Soup, NLTK, Seaborn, Matplotlib, scikit-learn, JUnit, Swing
- **Other**: Software Design Patterns, Agile SDLC, UML, LaTeX, Microsoft Suite (Excel, PowerPoint, Word)

EXPERIENCE

Penn Electric Racing, *Software Engineer* | Philadelphia, PA *Sept 2019 – Present*

- Contribute to code for the embedded systems and communication protocol libraries in C++
- Use Gazebo and Python to implement and simulate cone recognition for autonomous driving
- Work on a Vue.js GUI that provides an easy interface for displaying graphs and sensor data from the car

Penn Aerospace Club, *Software Engineer* | Philadelphia, PA *Sept 2019 – Present*

- Develop a "mission control" web application that tracks and stores data on the position, path, speed, and time for the high-altitude balloon using Node.js

Boston University, *Researcher* | Boston, MA *June 2018 – Aug 2018*

- Integrated biological and machine learning models to research toxic tau ion channels in Alzheimer's disease
- Modeled neural networks and single neurons using a variety of languages (Python, MATLAB) and packages (NEURON, DynaSim, scikit-learn, TensorFlow) to test memory and recall rates

PROJECTS

Penn Lost and Found *Feb 2020 – May 2020*

- Develop an app where users can post lost/found items on campus and communicate with other users
- Build a distributed software system with a mobile app using Android, a web administrator app using HTML and JavaScript, and a server-side application using Node Express and MongoDB
- Features include login, messaging, feed for postings, account monitoring for admin, warnings/ban, and more

Stock Trading Bot *Dec 2019 – Jan 2020*

- Wrote a bot in Python to trade stocks using Bollinger Bands, Relative Strength Index, and linear regression
- Automated trades and monitored my account through HTTP requests and JSON objects using Alpaca API
- Collected and stored 10,000+ data points daily in a SQL database for testing and algorithm refinement

Dungeon Escape *Nov 2019 – Dec 2019*

- Built a Java Swing game where a player collects keys and escapes monsters in a randomly generated maze
- Implemented torchlight effect, collisions, smooth movement, high scores, automated movement, and more

Data Projects *Oct 2019 – Nov 2019*

- UPenn Crime Mapping: Used Python and JavaScript & Google Maps API to clean and analyze months of crime data at UPenn and create a map with filters to sort crimes by the time of day and type of crime
- Overheard at UPenn Facebook Group Analysis: Analyzed data from 500 posts for word analysis, sentiment analysis, topic analysis, and post behavior over time using Python's NLTK and Matplotlib libraries

ADDITIONAL ACTIVITIES

- Moelis Access Science Volunteer Computer Science Instructor *Sept 2019 – Present*