Kevin Mao

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EDUCATION AND SKILLS

Columbia University School of Engineering   **Expected 2021**
- Bachelor of Science in Computer Science, 3.56 GPA (Dean's List)

Technical Skills
- Proficient in Python (Flask), JavaScript (React, Redux, TypeScript), Git and familiar with HTML, CSS

WORK EXPERIENCE

Tulip: *Software Engineering Intern*   **Summer 2019**
- Worked on Platform to improve their web-based tool for managing factories using customer feedback
- Enhanced the usability of Tables, a tool that allows customers to manage databases without any code by building new features, such as row deletion, a new datetime type, and real-time data syncing across clients
- Built features using full-stack technologies, ranging from Meteor + Go backend, to React + Redux frontend
- Learned best practice code techniques for working on industrial-sized code bases, like unit testing

Columbia Data Science Institute: *Research Intern*   **Spring 2018 – Spring 2019**
- Improved machine learning models, including Convolutional Neural Networks and Hidden Markov Models, that were designed to process neural data, using Tensorflow and Keras
- Optimized model parameters using early stopping and grid search, conducted data signal processing steps, such as FFT, and ran experiments on a Google Cloud Platform virtual machine
- Achieved 90%+ model classification accuracy on labeled electroencephalography data sets

PROJECTS

Sub-mARine: Co-*Developer*   **HackMIT 2019**
- Placed in the top 10 teams out of 600 participants and demoed the app at the closing ceremony
- Combined facial recognition and speech-to-text technology to develop a camera app that generates real-time subtitles of a person speaking and display them in augmented reality
- Used multiple mics to determine speech direction, Rev.ai to translate speech to text, and OpenCV to identify faces and attach subtitles to the face in the direction detected by the mics

LionBase: *Freelance Product Developer*   **Spring 2019 - present**
- Helping companies overcome technical challenges by building data-driven applications for their specific needs
- Developed a dashboard to help a music licensing company better manage their database of millions of songs
- Built app in Django and included features such as anomaly detection, searching, and Bokeh data visualizations

Cloud Fitness: *Co-Creator*   **Summer 2018 – Fall 2019**
- Helped users try out new gyms by finding and displaying free guest gym passes with this Flask web app
- Designed a dashboard that listed pass links and marked gym locations, data that was collected using web scraping, Microsoft Azure and Google APIs, and was stored in a MongoDB collection for future queries

Paean Health: *Researcher*   **Fall 2017 - Spring 2018**
- Won the 2017 Columbia Engineering Design Challenge with a team of 4 and $2500 in research funding
- Tackled the opioid crisis by researching and testing if activated carbon could chemically deactivate medication
- Designed a solution: the X-pouch, a small packet filled with activated carbon that patients could use to deactivate unwanted medication by inserting it into pill bottles, adding water, and shaking to release the carbon

LEADERSHIP EXPERIENCE

Columbia Biomedical Engineering Society: *Co-Coordinator of HealthHacks*   **Fall 2017 - Present**
- Invited 50+ student developers across the east coast to collaborate on projects that tackled important health issues, such as the opioid crisis and kidney cancer diagnosis, by organizing Columbia's first health hackathon
- Collaborated with a team of 5 by delegating tasks, such as grant applications and marketing to sponsors
- Taught a workshop on web development, provided technical assistance to participants and distributed over $1000 worth of prizes to winners