Kevin P Chen

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EDUCATION

New York University Tandon School of Engineering — Brooklyn, New York
Bachelor of Science in Computer Science — Class of 2027

- **Major GPA:** 4.00/4.00 | **Cumulative GPA:** 3.92/4.00 | **Activities and Honors:** Dean's List, Completed 2024 LeetCode Bootcamp

EXPERIENCE

Trip.com — Shanghai, China
Backend Software Engineer Intern — July 2024- August 2024

- Contributed to the development of an internal grammar and style checking tool, improving the communication efficiency of over 1,000 staff members by 35%.
- Assisted in leading a team of developers in debugging and enhancing the tool's algorithms, resulting in a 50% reduction in error rates and a 20% increase in processing speed.
- Participated in regular team meetings and code reviews, fostering a collaborative environment that ensured high-quality code and adherence to best practices.
- Assisted in delivering detailed documentation and training sessions to internal staff, enabling effective utilization and maintenance of the grammar checking tool.

Canadian Solar — Dallas, Texas
IT engineer Intern — June 2024- July 2024

- Collaborated in the architecture and deployment of Manufacturing Execution Systems (MES) for over 50 factory machines, resulting in a 30% increase in production efficiency and a 25% reduction in system downtime.
- Contributed to the development and implementation of machine learning algorithms that improved the detection rate of defective solar panels by 40%, enhancing quality control and reducing waste by 20%.
- Assisted in coordinating a cross-functional team of engineers and factory personnel to troubleshoot and resolve technical issues, ensuring seamless integration and operation of MES and machine learning systems.
- Provided training and technical support to factory personnel on the use and maintenance of MES and machine learning systems, enhancing overall technical proficiency within the team.

Thermo Fisher Scientific — Shanghai, China
Backend Software Engineer Intern — December 2022 - January 2023

- Implemented a Python script to automate the generation of SQL code based on spreadsheet columns, reducing the average amount of handwritten stored procedure code by approximately 25% and saving over 100 man-hours per month.
- Participated in a 5-member development team for the successful redesign of a legacy system, contributing to a 30% improvement in efficiency and a 20% increase in system reliability.
- Assisted in troubleshooting and resolving software bugs and performance issues, ensuring smooth and reliable system operation.
- Created detailed technical documentation and user manuals to support ongoing maintenance and future development efforts.
- Developed and optimized database queries to enhance data retrieval performance, resulting in a 20% reduction in query execution time.

PROJECTS

AlphaDoMi — Shanghai, China
Inventor and Creator — September 2019 - Present

- Created a device that detects a player's intonation and rhythm with 99% accuracy by implementing a Digital Signal Processing (DSP) noise-filtered string frequency feature recognition algorithm.
- Distributed 20 AlphaDoMi models to the local autistic children organization to use which improved intonation and rhythm of Shanghai Autistic Youth Orchestra by 60%.
- Published research paper that documented AlphaDoMi which was accepted by the 4th International Conference on Computing and Data Science.(CONF-CDS 2022)(Paper ID: CDS_0645)

IntroBot (Developed under NYU Tandon's engineering course) — Brooklyn, New York
Head of Production and Developer — September 2023 - December 2023

- Created a device that serves as a conversational companion robot leveraging ChatGPT API, designed with emotion-displaying capabilities to assist individuals with social anxiety by simulating realistic social interactions.
- Implemented facial detection using PiCamera2 and OpenCV, employing Haar Cascades for efficient facial bounding box creation due to Raspberry Pi's computational limitations.
- Integrated PyAudio for audio input, setting up a system to record and save audio as .wav files, later transcribing them into text using the Speech Recognition library.
- Employed Matplotlib for displaying emotion-corresponding faces (happy, sad, neutral) along with the chatbot responses, enhancing user interaction experience.

HONORS

Platinum Division in USA Coding Olympiad (USACO) — Online
Platinum Division — February 2021 - Present

- Promoted to Platinum Division with a score of 1000/1000.

SKILLS

- **Programming Languages:** C++, C, Java, Python, PHP, SQL, HTML, CSS, JavaScript, LaTeX.
- **Frameworks:** React.js, Vue.js, Node.js.
- **Fluent Languages:** English, Mandarin.