Jay Yeung
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SKILLS

- Programming Languages: C++, Java, Python, Perl, HTML, CSS, JavaScript and TypeScript
- Frameworks: TensorFlow, React, Next.js, OpenGL Flask, Django, Bootstrap, and Express.js
- Libraries: Git, NumPy, Pandas, SciPy, Mathplotlib, PyTorch, Sk-Learn, Scrapy, LangChain, OpenCV, BeautifulSoup, MediaPipe, PyAutoGUI, pickle, NLTK, RegEx, pyimgui and seaborn
- APIs: OpenAI, MongoDB, Pinecone, Discord and Hypixel API
- Coding platforms: Google Colab, Github, Microsoft Visual Studio, Eclipse, and Sublime Text
- Productivity tools: Google Workspace (Sheets, Docs, Slides, Forms) and Microsoft Office (Excel, Word, PowerPoint)
- Communication tools: Zoom, Discord, Outlook, Gmail, Google Meets, Slack, Trello
- Operating systems: Windows, Macintosh, and Linux
- Please refer to my website for more details of my skills: https://jayyeung.vercel.app/

WORK EXPERIENCES

TheCoderSchool | Cupertino, CA   **January 2023 - Present**
TheCoderSchool is an after-school program that teaches coding and computer science to school-aged children.
Computer Science Tutor
- Teach groups of one to give school-aged students various computer science skills including Java, Python, and Scratch.

NXP Semiconductors N.V. | San Jose, CA

NXP Semiconductors N.V. is a Dutch semiconductor designer and manufacturer which employs approximately 30,000 people in more than 30 countries.

    Summer Intern 2022   **June 2022 - Present**
- Created a technical proposal to leverage AI software algorithms on how to drastically reduce the ATE debug human resources and turn around time when pre-production test patterns have caught bad parts in testers.

    Summer Intern 2021   **June 2021 - August 2021**
- Created a Perl program to convert firmware code from binary to ATE (automatic test equipment) code format to streamline test code loading flow.
- Developed a C++ based VLSI Place & Route tool by using the Kernighan-Lin algorithm to optimize the data structure and speed up the run time from 50 to 4500 gates in seven hours.

University of Maryland MIND Lab | College Park, MD   **June 2022 – November 2022**
Computer Science Intern for the Maryland Information and Network Dynamics (MIND) Lab -
Breathing Analysis Research Project
- Analyzed respiration, movement and heart rate data collected from Spire tag, a wearable sensor which captures 25 samples per second
- Implemented a program to automatically clean up the dataset using quadratic regression

San Jose State University (SJSU)| San Jose, CA   **June 2022 – November 2022**
Computer Science Intern
- Conducted a data analysis research project of SJSU Computer Science Classroom Sizes and Success Outcome
- Used brute force data extraction from the SJSU databooks to locate patterns between Computer Science class sizes and success outcomes (GPAs and retention rates)
- Used python data methods and libraries to present results in a graphical manner

OTHER RELEVANT ACTIVITIES

Stock Market Research Predictor | Cupertino, CA   **April 2021 – May 2022**

    Polygence Student Participant
- Conducted analytical research into stock trends using various artificial intelligence algorithms, including random forest trees, support-vector networks, and neural networks

- Created a robot that consumes news headlines and historical performance data and predicts the stock market trend with 80% accuracy
- Collaborated with an MIT Computer Science Ph.D. student

Monta Vista Competitive Programming Club | Cupertino, CA   **October 2019 – May 2022**

Student-run computer programming club at Monta Vista High School that prepares students for competitive events including USACO and Standford ProCo.

Logistics Director
- Organize logistics and teach weekly programming lessons
- Organized the first-ever school-wide Lockout programming tournament
- Coordinated the annual recruiting event, Club Information Day
- Increased club membership fourfold in 2021

EDUCATION

- Monta Vista High School, Cupertino, CA – Graduating Class 2023
- Relevant Classes Completed: AP Calculus BC, AP Computer Science A, AP Physics 1, AP Environmental Science
- AP Classes in Senior Year (in progress): AP Statistics, AP Physics C, AP Macroeconomics, AP US Government and Politics
- AP Scores: AP Computer Science A (5), AP Calculus C (5), AP Physics 1 (4) and AP Environmental Science (4).
- High School Cumulative GPA: 3.838 (unweighted); 4.216 (weighted)

HONORS / AWARD

- AP Scholar with Honor Award - 2022
- Eagle Scout Rank - Boy Scout Troop 452 - 2022
- American Invitational Mathematics Examination (AIME) Qualifier - 2021
- United States of America Computing Olympiad (USACO) Silver Division Qualifier - 2019
- Certificate of Associated Board of the Royal Schools of Music Piano Level 8 - 2019