Andrew Collins

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Education

Santa Clara University, B.S. in Computer Science and Engineering   *December 2025*
Activities: Association for Computing Machinery (ACM), CS TA, Video Game Design Club, KSCU Radio, HCI Lab
Ambassador: Notion, Edge Impulse, Simplify
Courses: Machine Learning & Data Mining, Advanced Data Structures, Algorithms, Web Information Management, Probability and Statistics, Computer Networks, Compilers, Operating Systems, Introduction to Information Security

Skills

Languages: Python, C++, C, C#, Dart, Java, Typescript, Javascript, SQL, HTML, CSS, Verilog, Bash
Frameworks/Tech: Flask, NumPy, Pandas, Flutter, Vue, Unity, React, Firebase, NoSQL, Scikit-learn, Figma
DevOPs: Git, GitHub, Linux/Unix, AWS, AWS SAM, Docker, CI/CD, Jupyter, Selenium, Chrome DevTools, Vim, VSCode
Interests: Full-Stack, Machine Learning/ML, Backend, Data Science, Product Engineering, Entrepreneurship, Artificial Intelligence/AI, REST APIs, IOT, UI, UX, Embedded Devices, CAD, Hiking, Game Design, Music Composition/Production

Professional Experience

Qualcomm, Developer Intern   *June 2025 - September 2025*
- Engineered full-stack edge AI app (React.js, Python, websockets) with on-device model inference and real-time camera integration for low-latency and privacy-first video analytics.
- Built on-device PPE object detection ML model by integrating Rubik Pi 3 IoT dev kit and Edge Impulse, achieving 98.8% accuracy and <2 ms inference speed.
- Created Pong demo (pygame, Ollama, Qwen) with on-device LLM, enhancing adaptive gameplay.
- Collaborated with cross-functional teams (product, QA, BU) to resolve 20+ developer experience issues, improving product launch usability and developer integration.

SCU Human-Computer Interaction Lab, Software Engineer   *January 2023 - Present*
- Implemented data analysis tools (Python, Pandas, Jupyter) to investigate redesigning screen time management tools for digital wellbeing and classification of YouTube search queries based on context.
- Created Chrome Extension and AWS SAM API backend with LLMs to automate productivity focus mode.
- Developed iOS app in Swift utilizing iOS screen time APIs for research study on digital health.
- Led a team of PhDs, undergraduates, and developers accelerating project delivery.

Projects

Brickdle.com - Python, Google Analytics, Flutter, HTML
Parsed 17,000+ LEGO sets to create Wordle-like game where users guess number of LEGO's in images. Acquired 2.5K+ plays and 900+ visits across 37 countries in first month.

CandlesNet - Python, Pytorch, NumPy, Data Engineering
Engineered data pipelines for a transformer-based financial time-series model, processing 350K+ records.

Park, Bus, and Jam - Flutter, Flask REST API, NoSQL HiveDB, APIs, Python - *3rd Place INRIX Hack 2023*
Wrote full-stack transportation app invented to find most optimal parking and public transportation for concerts.

Your Pitch - Flutter, NoSQL HiveDB, Spotify Web API - *3rd Place ACM Winter Challenge*
Developed daily-curated music recommendation mobile app with own Spotify API Library and OAuth 2.0 PKCE.

Fist Bump - Vue.js, Dart Shelf API, NoSQL HiveDB - *3rd Place Hack for Humanity 2024*
Implemented full-stack website and API to connect students with on-campus events with custom calendar view.

Leadership Experience

SCU ACM (Computer Science Club), President   *October 2022 - June 2025*
- Managed and ran 8 student-run hackathons (Hack for Humanity, AWS x INRIX Hack, Roblox Hack, INRIX Hack) with 300+ participants to provide students valuable industry skills and opportunities to innovate.
- Instructed technical workshops on Python/Flask, Fullstack development, personal projects, and OpenAI to 200+ students to teach importance of going beyond academia through impactful applications.

Video Game Design Club, Vice President   *September 2022 - Present*
- Oversaw all technologies including GitHub (git project manager), Unity (C#), and web design in a collaborative space to encourage leadership and innovation.