Brian Ngo

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EDUCATION

California State University - Fullerton

Bachelors in Computer Science   *Expected Graduation: 2026*

RELEVANT COURSEWORK

Computer Science: Artificial Intelligence, Algorithm Engineering, Software Engineering, Compilers and Languages, OS, Database and Applications, Multivariable Calculus, Linear Algebra and Diff Equations, Statistics

PROJECTS

Custom Digital Smartwatch | *Software Team Lead, Project Lead, Theta Tau*   Feb 2025 - April 2025
- Led an 18-person team to design, build, and deploy a fully functional smartwatch using Raspberry Pi Zero, delivering on a strict 10-week timeline.
- Organized work into structured phases (research, production, optimization, deployment) and ran weekly/biweekly Scrum meetings to set goals, resolve blockers, and maintain steady progress.
- Solved critical hardware and software issues (touchscreen drivers, Raspberry Pi OS) using Bash shell scripting, demonstrating strong technical leadership and problem-solving under pressure.
- Developed custom smartwatch applications in Python and Pygame, including a Flappy Bird-style game, a stopwatch/timer, and a random number generator.
- Managed version control with GitHub (branching, merging, pull requests) to coordinate team contributions and ensure seamless system integration.

EXPERIENCE

Software Engineer Intern - Data Systems   June 2025 - August 2025

NTL Precision   *San Jose, CA*
- Designing and implementing scalable full-stack ERP platform using Next.js/React/TypeScript, achieving 83% code reduction through modular architecture and component reusability across order management, production, and inventory systems.
- Engineering high-performance database layer with PostgreSQL/Supabase, eliminating N+1 queries through batch fetching and implementing Map-based lookup tables.
- Delivering end-to-end user experience with responsive design, real-time search algorithms, and automated workflow orchestration, driving operational efficiency across manufacturing pipeline.

PNM President   Feb 2025 - May 2025

Theta Tau, Phi Epsilon Chapter   *Fullerton, CA*
- Led as the central support figure for the team, guiding peers, answering questions, and empowering others to succeed through consistent, approachable leadership.
- Acted as the primary liaison between the team and organizational leadership, ensuring transparent communication and alignment on goals and expectations.
- Collaborated closely with fellow board members, actively sharing responsibilities and delegated key initiatives to ensure cohesive execution and collective success.

Hackathon Participant   April 12-13, 2025

FullyHacks (CSUF Hackathon)   *Fullerton, CA*
- Completed a 24-hour hackathon, balancing independent project development with active workshop participation, where I gained hands-on experience with tools like AWS.
- Focused on rapid learning, technical skill-building, and hands-on application under time constraints.
- Developed a real-time gesture recognition system using OpenCV and MediaPipe to map dynamic hand gestures to keyboard or mouse inputs.

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, Java, C++, SQL
ML/Data Science: PyTorch, Scikit-Learn, Pandas, NumPy, Matplotlib, OpenCV, MediaPipe
Full-Stack & Cloud: Node.js, PostgreSQL, Supabase, RESTful APIs, React 18, Next.js 14
Tools & Platforms: Git, Docker, AWS, Vercel, Jira, Scrum, Agile, Jupyter Notebook, Figma, Tailwind CSS