NUTTHAWAT PANYANGNOI

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EDUCATION

Bachelor of Science: **Computer Engineering**   **Expected in 12/2025**
San Jose State University   San Jose, CA
- *Minor in Computer Science | **GPA:** 3.33 / 4.00*

Associate of Science: **Computer Science**   **05/2022**
Las Positas College   Livermore, CA
- *Minor in Mathematics | **GPA:** 3.4 / 4.0*
- *Dean's List Awarded*

TECHNICAL SKILLS

Programming Languages: C, C++, Python, JavaScript, SQL, Verilog, HTML, CSS
Machine Learning & Deep Learning: PyTorch, TensorFlow, NumPy, Scikit-learn, OpenCV, Jupyter, CUDA
Embedded Systems & Circuit Design: Raspberry Pi CM4, FPGA (Verilog/SystemVerilog), LTspice, Oscilloscope, KiCad
Software & Tools: Docker, VMware, Vivado, SolidWorks, Office 365, Figma
Hardware & IT Support: BIOS flashing, RAID setup, VPN configuration, NAS management, troubleshooting
Operating Systems: Linux, Windows, macOS

WORK EXPERIENCE

IT Technician   **03/2020 to 08/2023**
Mountain Cascade, Inc.   **Livermore, CA**
- Provided end-to-end IT support by identifying, troubleshooting, and resolving hardware and software issues in a busy corporate environment.
- Performed hands-on technical work including BIOS flashing, RAID configuration, VPN setup, and regular maintenance of servers and workstations.
- Managed the company's hardware inventory while coordinating repairs, system upgrades, and workstation setup for new and existing staff.

Frontend Software Developer   **04/2018 to 03/2020**
Amber System Technology   **Pleasanton, CA**
- Designed and refined the user interface of point-of-sale systems to ensure smooth navigation, visual appeal, and ease of use for business clients.
- Led front-end development of custom software by collaborating with clients to understand their goals and turning those into functional features.
- Developed and maintained full-stack web applications that improved operational workflows and provided scalable long-term solutions for small businesses.

PROJECTS

FoodReal iOS Application (React Native, Tailwind, Expo, Firebase)   In Progress
- Designing a mobile app that promotes home-cooked meals and social food sharing through swipe-based interaction.
- Built a clean, user-friendly interface and integrated Firebase backend to support user accounts and engagement features.

Handheld Computing Device (C, C++, Linux, KiCad, LTspice, Raspberry Pi CM4)   In Progress
- Developed a modular handheld computer using the Raspberry Pi CM4 and ClockworkPi mainboard for embedded systems work.
- Configured a custom Linux OS, including bootloader, device tree, and performance optimization for mobile computing.

Note Hub Web Application (Python, Flask, SQLAlchemy, Django)   Apr 2023
- Built a web-based note-taking platform inspired by Notion, allowing users to create, update, and delete notes.
- Implemented secure login system and session management using Flask and SQLite for lightweight deployment.

Neural Network Classifier – Iris Dataset (PyTorch, NumPy, Pandas, Python, Scikit-learn)   May 2025
- Trained a neural network to classify sign language gestures, then deployed the model to a Raspberry Pi with live webcam input.
- Reduced latency and improved performance by applying PyTorch quantization and tracking accuracy metrics on-device.

RESEARCH EXPERIENCE

Computer Engineering   **08/2024 to 12/2024**
NASA Proposal Writing and Evaluation Experience program   **Remote**
- Conducted in-depth research on high-voltage battery systems and investigated laser-based charging methods to support extended-duration space missions.
- Co-wrote and presented a technical proposal that was selected by NASA Marshall Space Flight Center for further review due to its innovation and practical feasibility.
- Collaborated with engineers and analysts to evaluate new aerospace concepts and contributed to the design of early-stage prototypes used for proof-of-concept modeling.

Program Analyst & Computer Engineering   **01/2024 to 08/2024**
NASA Mission Concept Academy program   **Remote**
- Played an active role in a simulated NASA Discovery Mission, contributing to technical planning for a lunar water sample retrieval and return operation.
- Assisted in managing mission schedules by forecasting and aligning critical milestones using NASA's project review and tracking systems.
- Conducted mission cost analysis by researching historical data and applying NASA's official tools to estimate budgets, resources, and instrumentation needs.

CERTIFICATIONS

NASA L'SPACE Mission Concept Academy – NASA L'SPACE | Aug 2024
- Completed a 3.5-month training simulating the NASA Discovery mission lifecycle, including concept planning, systems design, and milestone reviews.

NASA Proposal Writing and Evaluation Experience – NASA Marshall Space Flight Center | Dec 2024
- Participated in a NASA-led innovation initiative; co-authored a selected proposal on high-voltage, laser-chargeable battery systems for space missions.

Foundations of Data Science – Google | Jun 2025
- Trained in data collection, interpretation, and foundational analytics; completed exercises in data handling and real-world scenarios.

Get Started with Python – Google | Jun 2025
- Completed project-based Python training with emphasis on scripting, data analysis, and solving practical programming problems.

Computer Components and Peripherals for IT Technicians – LinkedIn Learning | Jun 2025
- Gained knowledge in computer hardware, peripheral devices, and IT support fundamentals including system diagnostics and maintenance.