NUTTHAWAT PANYANGNOI

📞 (209) 407-9730 — ✉ panyangnoi.nutthawat@gmail.com — 🔗 linkedin.com/in/nathan-panyangnoi/
⭘ github.com/kur0neko

EDUCATION

- **San Jose State University**, San Jose, CA — **Dec 2025**
  B.S. Computer Engineering, Minor: Computer Science — GPA: 3.35/4.0
- **Las Positas College**, Livermore, CA — **May 2022**
  A.S. Computer Science, Minor: Math — GPA: 3.5/4.0

TECHNICAL SKILLS

- **Programming Languages:** C, C++, Python, JavaScript, SQL, Verilog, HTML, CSS, (Familiar with C)
- **Deep Learning / ML:** PyTorch, TensorFlow, NumPy, Scikit-learn, OpenCV, Jupyter
- **Embedded Systems:** Raspberry Pi CM4, NVIDIA Jetson (familiar), FPGA (Verilog/SystemVerilog), LTspice, Oscilloscope, KiCad
- **Software:** Docker, VMware, Vivado, SolidWorks, Office 365, Figma
- **Hardware:** IT Support, BIOS Flashing, RAID, VPN, NAS, Troubleshooting
- **Operating Systems:** Linux (Ubuntu, Arch, Mint), Windows, macOS

WORK EXPERIENCE

NASA MSFC NPWEE Program — *Electrical & Computer Engineer* — **Aug 2024 – Dec 2024**
Remote

- Conducted technical research on high-voltage battery tech for space missions, enabling compact energy systems with potential for laser charging integration.
- Collaborated on systems-level algorithm design for battery efficiency modeling and embedded energy control logic.
- Pitched and co-authored an innovation proposal selected by NASA MSFC for further development.

NASA MCA by NASA MSFC — *Program Analyst & Computer Hardware Engineer* — **Jan 2024 – Aug 2024**
Remote

- Collaborated with a team of engineering students on a simulated NASA Discovery Mission to design and execute a lunar water sample collection operation.
- Managed financial and resource planning to ensure mission feasibility, including cost estimation and analysis for the Preliminary Design Review (PDR).
- Conducted mission cost estimation, resource analysis, and project timeline forecasting for major design milestones (MCR, SRR, MDR) using NASA tools such as NICM CERs/SERs and MCCET

Mountain Cascade, Inc. — *IT Technician (Full-time)* — **Mar 2020 – Aug 2023**
Livermore, CA

- Provided comprehensive IT support, diagnosing hardware and software issues in a Windows environment.
- Performed hands-on BIOS flashing, RAID setup, VPN configuration, NAS configuration and server maintenance.
- Provided hands-on support includes break/fix, service request fulfillment, deployments, upgrades, and hardware lifecycle management.

Amber System Technology — *Frontend Software Developer* — **Apr 2018 – Mar 2020**
Pleasanton, CA

- Designed and implemented POS UI/UX for customer specific need to help them operate business better.
- Led frontend feature development ensuring align with customer requirements and business goals.
- Developed full stack website solutions to meet client-specific requirements using React, nodeJS,and MongoDB,

Volcano Splash Drinks (Family Business) — *Barista, Manager, Business Owner* — **Aug 2013 – Dec 2018**
Tracy, Stockton, Pleasanton, San Jose CA

- Partnered with SPECTRA by Comcast Spectacor to provide beverage services; coffee, smoothies, at baseball stadiums and public events.
- Operated in various roles, including customer service, management, and marketing for a family-owned business.
- Managed seasonal staffs over 60 people and led day-to-day operations of concession stands, ensuring high-quality service delivery during events.

PROJECTS

FoodReal iOS Application *(React Native, Tailwind, Expo, Firebase)* **In Progress**
- Developing a mobile app that encourages users to cook at home and share meals on social media to inspire others.
- Designed an intuitive, swipe-based interface with a user-friendly UI for seamless engagement.

Handheld Computing Device *(C, C++, Linux, KiCad, LTspice, Raspberry Pi CM4)* **In Progress**
- Engineered a modular computing system using the Raspberry Pi CM4, ClockworkPi v3.14 mainboard, and battery module.
- Built a custom Linux-based OS from scratch, including bootloader setup, device tree configuration, and filesystem optimization.

Note Hub Web Application *(Python, Flask, SQLAlchemy, Django)* **Jan 2023 – Apr 2023**
- Created a Notion-inspired web app with Flask and SQLite for note-taking and organization.
- Implemented secure user authentication using session-based login management.

Neural Network Deployment *(PyTorch, Python, Raspberry Pi)* **Apr 2025 – May 2025**
- Trained convolutional neural networks (CNNs) on a sign language image dataset and deployed the model to a Raspberry Pi with integrated webcam.
- Optimized inference using PyTorch quantization and evaluated hardware performance based on latency and accuracy benchmarks.

Waveform Generator Circuit Design / DC-to-AC Converter *(LTspice, Breadboard)* **Jan 2023 – Apr 2023**
- Designed and simulated a square/triangle waveform generator using CD-40106 and BC547B components in LTspice.
- Constructed the circuit on a breadboard and validated waveform outputs using an oscilloscope.

CERTIFICATIONS

NASA L'Space Mission Concept Academy **Aug 2024**
- Earned certification after completing a 3.5-month program focused on a simulated NASA Discovery mission, culminating in the Preliminary Design Review (PDR), under the guidance of NASA Marshall Space Flight Center (MSFC).

NASA Proposal Writing & Evaluation Experience **Dec 2024**
- Earned certification after a 3.5-month collaboration on a space innovation proposal, co-authoring the development of high-voltage, laser-chargeable battery technology with greater power density and lower weight than conventional lithium-ion cells.