

NUTTHAWAT PANYANGNOI

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EDUCATION

Bachelor of Science: Computer Engineering | *Minor in Computer Science*
San Jose State University

Expected in 12/2025
San Jose, CA

Associate of Science: Computer Science | *Minor in Mathematics*
Las Positas College

05/2022
Livermore, CA

- *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 PC using the Raspberry Pi CM4 and ClockworkPi mainboard for embedded systems work.
- Create a custom Linux OS with custom bootloader, grub, etc. based on Ubuntu Distribution.

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

- Implemented a supervised neural network model to classify Iris flower, leveraging linear regression as a baseline for comparison.
- Implemented model training with Adam optimizer and cross-entropy loss, tracking evaluation accuracy on test data.

Square & Triangular Waveform Generator Circuit (LTspice, Schmitt-Trigger CD-40106, Oscilloscope)

May 2023

- Designed and simulated a waveform generator using LTspice to produce square and triangular wave outputs across varying frequencies, leveraging a Schmitt-Trigger (CD-40106) and BC547B transistor, then constructed and tested the circuit on a breadboard, verifying functionality with an oscilloscope and confirming design accuracy against simulation results

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.