NUTTHAWAT PANYANGNOI (U.S. Citizen) # lumiere-lab.com

Career Objective

Resourceful and technically skilled Computer Engineering student with a strong foundation in software development, machine learning, and embedded systems. Experienced in building full-stack web and mobile applications using Python, React Native, Flask, and SQL, with hands-on exposure to deep learning tools like PyTorch and TensorFlow. Contributed to NASA-led programs, collaborating on proposal writing, mission design, and technical analysis. Demonstrates consistent problem-solving ability, attention to detail, and the versatility to work across both software and hardware environments. Actively seeking opportunities to apply practical coding skills and systems thinking in real-world software engineering roles.

EDUCATION

San Jose State University, San Jose, CA

B.S. Computer Engineering, Minor in Computer Science

Las Positas College, Livermore, CA

A.S. Computer Science, Minor in Math

Expected 12/2025 GPA: 3.327/4.0

05/2022

GPA: 3.4/4.0

Technical Skills

Programming languages: C/C++, Python, JavaScript, mySQL, HTML, CSS, Bash, MongoDB, React

Machine Learning & Deep Learning: PyTorch, TensorFlow, NumPy, Scikit-learn, Jupyter, CUDA, OpenCV Embedded Systems & Circuit: Rasberry Pi CM4, FPGA (Verilog/SystemVerilog), LTspice, Oscilloscope, KiCad

Software & Tools: Docker, VMware, SolidWorks, Office 365, Adobe Photoshop, Figma

Hardware & IT Support: BIOS Flashing, RAID, VPN configuration, NAS management, Troubleshooting

Operating Systems: Linux, Windows, macOS

Work Experience

NASA Proposal Writing and Evaluation Experience

08/2024 to 12/2024

Computer Engineer

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.

NASA Mission Concept Academy

01/2024 to 08/2024

Program Analyst & Computer Engineer

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.

Mountain Cascade, Inc.

03/2020 to 08/2023

IT Technician

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.

Amber System Technology

04/2018 to 03/2020

Frontend Software Developer

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 longterm 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)

04/2023

- Built a web-based note-taking platform inspired by Notion, allowing users to create, update, search and delete notes.
- Implemented secure login system and session management using Flask and SQLite for lightweight deployment

Neural Network Classifier for Iris Dataset (PyTorch, NumPy, Pandas, Python)

05/2025

- 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.

Certifications

NASA L'SPACE Mission Concept Academy - NASA L'SPACE

08/2024

• Completed a 3.5-month training simulating the NASA Discovery mission lifecycle, including concept planning, systems design, and milestone reviews.

NASA Proposal Writing Evaluation Experience - NASA Marshall Space Flight Center

12/2024

• Participated in a NASA-led innovation initiative; co-authored a selected proposal on high-voltage, laser-chargeable battery systems for space missions.

Google Foundations of Data Science - Google

07/2025

• Trained in data collection, interpretation, and foundational analytics; completed exercises in data handling and real-world scenarios.

Google Get Started with Python - Google

07/2025

• 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	06/2025
• Gained knowledge in computer hardware, peripheral devices, and IT support fundamentals including system deand maintenance	iagnostics
and maintenance	