Nutthawat Panyangnoi

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**SUMMARY**

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**

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*

**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**

Computer Engineer 08/2024 to 12/2024

NASA Proposal Writing and Evaluation Experience 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 Engineer 01/2024 to 08/2024

NASA Mission Concept Academy 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.

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)                    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.

**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