

# NUTTHAWAT PANYANGNOI

CA, USA | (209) 407-9730 | [panyangnoi.nutthawat@gmail.com](mailto:panyangnoi.nutthawat@gmail.com) | [LinkedIn](#) | [Portfolio](#)

## 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

San Jose State University

- *Minor in Computer Science* / GPA: 3.33 / 4.00

Expected in 12/2025

San Jose, CA

### Associate of Science: Computer Science

Las Positas College

- *Minor in Mathematics* / GPA: 3.4 / 4.0

05/2022

Livermore, CA

## 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

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**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

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**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

# Letter of Recommendation: Nutthawat Panyangnoi

July 27<sup>th</sup>, 2025

To Whom It May Concern,

I am writing this letter to recommend Nutthawat Panyangnoi, a student who has attended and excelled in classes C++ Programming Structures (CS-20), Computer Architecture/Assembly Language (CS-21), and Database Programming (CS-45) courses which I taught at Las Positas College in Livermore California between 2018 and 2022.

Mr. Panyangnoi is not someone who claims to be a natural-born genius, but rather the kind of student who consistently puts in the time, effort, and focus to learn and improve. In both C++ and Assembly languages, Mr. Panyangnoi faced challenging material but approached it with determination and a strong willingness to ask questions, practice, and truly understand the concepts. Throughout these classes, I saw Mr. Panyangnoi grow steadily, not just in his technical skills, but in confidence as a learner and a team player with fellow classmates.

In addition to these courses, Mr. Panyangnoi also took a course in Relational and No-SQL Databases to help strengthen his understanding of how data is managed and structured throughout the industry. Although the course was not transferable to four year universities, it shows his initiative and commitment to gaining practical, foundational skills in computer science.

What I appreciated most was his positive attitude, persistence, and genuine interest in learning. Mr Panyangnoi did not shy away from difficult problems and was always willing to put in the extra work to make progress—even when the results were not immediate. In my experience as a retired research/developer at IBM and academic, that kind of character can be more often valuable than simple raw coding talent.

I believe Mr. Panyangnoi will bring that same persistence and dedication to any program or opportunity he chooses to pursue.

Sincerely,

A handwritten signature in black ink that reads "Bill D. Komantsky". The signature is fluid and cursive, with the first name "Bill" and last name "Komantsky" being clearly legible.

William Komantsky, MS-CS/MTH/ASTR, CFI, CFII, MEI  
Professor Computer Science/Mathematics (Emerita)  
IBM Distinctive Engineer (Emerita)

/wjck

David Morse  
IT Manager  
Mountain Cascade, Inc.  
[davidm@mountaincascade.com](mailto:davidm@mountaincascade.com)

November 6, 2024

To whom it may concern,

It is my pleasure to strongly recommend Nutthawat Panyangnoi to any company with technology needs.

I've worked in IT for 30 years and I've been the IT manager of Mountain Cascade for 20 years. Mountain Cascade is a construction company that has offices in California, Nevada and Texas and we do about 350 Million dollars a year in work. Our inhouse IT department builds, configures, installs, secures, maintains and provides support for all of our servers and computers. Nothing is outsourced. In March of 2020, while Nutthawat Panyangnoi was still a full-time student, I hired him as an IT Technician. My goal was for him to be a true backup for myself and, during his 3 and ½ years at Mountain Cascade, he was.

Here are some of his accomplishments and strengths:

- Provided comprehensive IT support, significantly enhancing customer service and satisfaction for engineering, project managers, and field workers.
- Identified and recommended software upgrades to drive technological improvements and operation efficiency.
- Advised on technology usage and process enhancements to streamline company operations
- Set up handheld devices for specific use cases, ensuring they met precise operational needs.
- Managed and optimized virtual machine servers, enabling seamless remote engineering work.
- Diagnosed and resolved complex hardware and software issues, with a specialization in Windows environments.
- Configured and enforced security policies and systems on Windows servers to ensure data integrity and protection.
- Led strategic IT initiatives, including technology upgrades and server optimization, aligning with organizational objectives.
- Delivered IT support for specialized applications, including HCSS, Sage products, and Timberline Accounting.
- Configured NAS server backups to ensure data continuity and security.
- Developed Windows BASH scripts in conjunction with Robocopy to automate data management tasks.
- Managed and maintained the company's VoIP phone system, ensuring reliable communication infrastructure.
- Constructed and built computers from the ground up, matching requested specifications to meet precise operational needs.
- Repaired laptops and desktop PCs, ensuring their optimal functionality and longevity.
- Setup and configured DNS/DHCP, printers, scanners, and VPN connections to the main office, ensuring seamless network and device integration.
- Facilitated the implementation of multifactor authentication throughout the company.

Technology is constantly changing. I feel that what a person knows is infinitely less important than how quickly he or she can master the unknown. When Nathan (Nutthawat) was hired, as a student in college, he did not know everything above. Over the 3 ½ years he was at Mountain Cascade, I came to see him as a quick learner with excellent problem-solving skills. He is someone I knew I could rely on and he is well liked and respected at Mountain Cascade.

Sincerely,



David Morse