Min Aung Paing

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Education

University of California, San Diego — Expected in Jun 2026
Bachelor of Science in Computer Science - 4.0 GPA — *La Jolla, CA*

Pasadena City College — Jan 2022 - Jun 2024
Associate of Science in Engineering and Technology - Summa Cum Laude 4.0 GPA — *Pasadena, CA*

Relevant Experiences

Computer Science Research Scholar — Sept 2024 - Present
UC San Diego — *La Jolla, CA*

- Analyzed and identified critical bottlenecks in the HyperSpec, a hyperspectral clustering tool for bioinformatics research project, implementing optimizations that significantly enhanced runtime efficiency
- Leveraged GPU acceleration and parallel computing with CUDA and Tensor Cores to optimize clustering algorithms, achieving exponential reductions in data processing time
- Expected to enable more scalable hyperspectral data analysis, supporting advanced bioinformatics research by reducing computational costs and increasing processing speed

Machine Learning Fellow — Aug 2024 - Dec 2024
American Express — *Los Angeles, CA*

- Collaborated with a team of 5 fellows and an Engineering Director to develop a supervised machine learning model to detect and anonymize sensitive data across various text formats, ensuring secure data handling
- Employed Regex, Named Entity Recognition (NER), and Large Language Models (LLMs) to achieve over 90% accuracy in detecting and redacting sensitive attributes
- Utilized Microsoft Presidio and spaCy model for entity detection integrating format-preserving encryption (FPE) to maintain data format integrity while enhancing security

Mobile App Development Intern — Apr 2024 - July 2024
Pasadena City College — *Pasadena, CA*

- Designed and developed a cross-platform mobile app for iOS and Android using Ionic, Angular, and Firebase and MongoDB, facilitating streamlined communication for over 20,000 students and multiple college departments
- Integrated SAML-based Single Sign-On (SSO) for secure and seamless user authentication, utilizing a custom Identity Provider (IDP) for enhanced security
- Optimized frontend UI/UX components and integrated real-time backend services, developing RESTful APIs with Node.js and Firebase, ensuring smooth data flow and user experience

Robotics Team - Lead Software Engineer — Aug 2023 - July 2024
Pasadena City College — *Pasadena, CA*

- Built a radio data transmission system enabling fast communication while eliminating communication overlap and implemented a state machine for the vertical profile float
- Designed data storage system using a real-time clock reducing weight by 100 grams
- Programmed a double claw system ensuring better mobility and functionality of the rover for more delicate tasks and improving efficiency by 30%
- Led the team to participate in the underwater robotics world championship and managed to rank 13 out of 79 teams

Projects

C++-Assembly x86-Exam APP | *ASM x86, C++, Cmake, Javascript, HTML, CSS Electron* — Aug 2023 - July 2024

- Developed a cross-platform desktop application for managing and tracking exam preparation utilizing the Electron framework
- Integrated a C++ code editor and compiler within the app, allowing users to write, compile, and run C++ code directly, using Monaco Editor and custom CMake configurations
- Enhanced app security by disabling system shortcuts to maintain focus during exams and enforcing a confirm-exit dialog to prevent accidental closure

Technical Skills

Languages: C/C++, JavaScript, Typescript, Java, Python, HTML/CSS, SQL
Frameworks/Tools: React, Node.js, Ionic, Git, Docker, Electron, Firebase, CUDA, .net