

SHU-WEN YEH

6027503613 | yehshuwen2024@gmail.com | Tempe, AZ, 85281 | www.linkedin.com/in/shu-wen-yeh-aa2277137

Full Stack Engineer and Computer Engineering graduate student (4.0 GPA) with 5+ years of experience at TSMC and Cathay Life Insurance. Expertise in distributed systems, DevOps, and technical leadership. Seeking software engineering/embedded software internship for Summer 2026.

EDUCATION & QUALIFICATIONS

Arizona State University , Tempe, Arizona <i>Master of Science in Computer Engineering</i>	Aug 2025 - May 2027 <i>Cumulative GPA 4.0/4.0</i>
National Yang Ming University (NYMU) , Taipei, Taiwan <i>Master of Science in Biomedical Informatics</i>	Feb 2017 - Aug 2018
National Cheng Kung University (NCKU) , Tainan, Taiwan <i>Bachelor of Business Administration in Statistics</i>	Sep 2010 - Jun 2014

PROJECTS

Embedded Machine Learning Projects - Arduino BLE 33 Sense	Fall 2025
• Developed real-time posture detection system in C++ and Python, classifying 5 body positions using IMU sensor fusion (accelerometer, gyroscope, magnetometer) and TinyML model deployment for real-time inference with monitor visualization. • Implemented voice-activated LED control system using C++ and Python with keyword spotting for 5 spoken commands, training ML model in Python and deploying to Arduino for edge inference with real-time hardware response.	

PROFESSIONAL EXPERIENCE

Taiwan Semiconductor Manufacturing Company Limited, TSMC <i>Senior Engineer, Technical System Integration Department</i>	Hsinchu, Taiwan Oct 2021- Sep 2024
• Worked as Full Stack Engineer, developed enterprise cloud storage platform serving 30,000+ employees across all TSMC fabs on 4-person team, replacing fragmented legacy file servers with Azure CI/CD pipeline within 6 months. • Architected distributed carrier management system as Tech Lead for 6-person team using Agile/Scrum, tracking wafer carriers across TSMC fabs with federated architecture ensuring fault tolerance. • Designed full-stack solution with Spring Boot/Kotlin backend, Next.js/React/TypeScript frontend, and MariaDB, integrating Keycloak for enterprise-wide authentication and SSO. Established Azure CI/CD pipeline and Prometheus monitoring for real-time analytics and role-based access control across distributed applications. • Implemented WebDAV protocol enabling in-browser Office editing, multi-format preview (PDF/Office /Markdown/video), version control, and role-based access using React/TypeScript/fp-ts and Spring Boot/Kotlin with Mojito analytics. • Established training program for 50+ engineers in Functional Programming using TypeScript/fp-ts, serving as onboarding mentor and receiving TSMC Distinguished Teacher Award for code quality improvements.	

Cathay Life Insurance <i>Senior Specialist, Life Insurance Information Department, Programming Section</i>	Taipei, Taiwan Jan 2019 - Feb 2021
• Worked as Full Stack Engineer, developed travel insurance system for airport operations with Canvas-based digital signature (jSignature) and Java backend, streamlining customer enrollment and eliminating manual paperwork. • Developed AI-powered OCR web service using Python Flask, LSTM, OpenCV, and Tesseract-OCR to automate medical diagnosis document processing, achieving 90% extraction accuracy and reducing manual data entry by 80%. • Led programming team in task allocation and technical problem-solving, ensuring on-time delivery of 6 system modules while mentoring 4 junior developers in Java/JavaScript.	

HONORS & AWARDS

- TSMC Distinguished Teacher Award - Training 50+ engineers in Functional Programming (Dec 2022)
- TSMC Special Award (Outstanding Employee) - Enterprise cloud storage development (Dec 2022)

TECHNICAL SKILLS

Programming Languages: C, C++, Java, Kotlin, Python, TypeScript, JavaScript, SQL, R, Bash, HTML5/CSS3

Frameworks & Tools: Spring Boot, Node.js, Next.js, React, Arrow-kt, fp-ts, Keycloak, TensorFlow Lite, OpenCV, Cypress, Git, Docker, Kubernetes, Azure, MongoDB, MariaDB, MySQL, Prometheus, Grafana, Flask, Fastify

Embedded & ML: Arduino BLE 33 Sense, TinyML, Edge ML, IMU Sensors, Real-time Inference

Development: Full-stack Development, Front-end Development, Back-end Development, Software Testing, Performance Testing, Bug Fixing, Design Patterns, Data Structures & Algorithms, System Design, DevOps, Agile/Scrum, Communication Skills, System Architecture, Systems Integration

Core Competencies: Object-Oriented Programming, Computer Architecture, Operating Systems, Embedded Systems, Computer Networks, Functional Programming, REST API, WebDAV, Domain-Driven Design