Zaw Ye Htut

Systems Engineer

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Open to relocation: Texas / Los Angeles, CA | No employer sponsorship required

Professional Summary

Systems Verification Engineer focused on automotive embedded integration, requirements-based testing, and Python/CAPL automation. Builds CAN/CAN-FD test tools and hardware interfaces, with experience in hardware-in-the-loop (HIL) validation, electrical validation, and software development at AWS.

Professional Experience

HL Mechatronics | Auburn, MI

Systems Verification Engineer / Oct 2023 – Present

- **Hardware/Software Integration**: Developed a working Raspberry Pi/CAN-FD prototype for low-level validation; built the Python application, hardware interfaces, GUI, logging, and reporting. Platform integration is ongoing.
- **Communication Validation**: Implemented CAN-FD command/response checks to evaluate positive and negative device responses and record test outcomes.
- **Electrical Validation Tool**: Developed a Python electrical-validation GUI using PCAN-USB X6 in place of Vector hardware for supported workflows; implemented CAN messaging, measurement calculations, data capture, and reporting for automotive customer programs.
- **Release Compatibility**: Delivered the GUI in 2023 for ongoing use by the validation team; maintain compatibility with software builds originally developed for Vector hardware.
- **Verification & Debugging**: Develop Python/CAPL automation in CANoe and CANalyzer for requirements-based, regression, and integration testing; analyze communication and interface defects and document validation evidence.
- **CI & Release Traceability**: Implement Git and Jenkins workflows to automate validation checks and maintain traceability across software releases.

Amazon Web Services (AWS) | Miami, FL

Software Development Engineer / Aug 2022 – Jul 2023

- **Application Development**: Developed React.js user-interface functionality, backend lead-time calculations, and Node.js REST APIs for AWS Supply Chain planning workflows.
- **Monitoring & Diagnostics**: Created Amazon CloudWatch pipeline alarms and application-health dashboards to support operational monitoring and issue investigation.
- **Software Delivery**: Coordinated feature delivery with product, AI, and platform teams; contributed to code reviews, CI/CD workflows, and production defect investigation.

Technical Skills

Systems & Validation: Embedded integration, HIL validation, requirements-based verification, regression and integration testing

Protocols & Hardware: CAN, CAN-FD, Ethernet, I2C, PCAN-USB X6, Raspberry Pi

Engineering Tools: CANoe, CANalyzer, MATLAB/Simulink, dSPACE

Programming: Python, CAPL, C, C++

Tools & Delivery: Git, Jenkins, CI/CD, Amazon CloudWatch, Jira

Education

Lamar University | 2022

Master of Science in Computer Science

Universiti Teknologi PETRONAS | 2019

Bachelor of Engineering in Electrical & Electronics Engineering