Yu-Chen, Lin (Jean, Lin)

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Education

The Ohio State University Aug. 2024 - May 2026 (Expected)
M.S. in Computer Science and Engineering Ohio, USA
- Coursework: Distributed Enterprise Computing (SOAP and REST web services, Enterprise Java, AJAX and JSON, XML), Advanced Operating Systems (distributed systems, database transactions, virtualization and cloud technologies), Data Visualization

National Cheng Kung University Sep. 2017 - Aug. 2019
M.S. in Aeronautics and Astronautics Engineering (Overall GPA: 3.95/4.3) Taiwan

Technical Skills

Programming Languages: C/C++, Python, Bash, Unix-like command, JavaScript, HTML/CSS, Golang
Technology: Linux, Git, Modern CMake, Vim, Continous Integration/Deployment (CI/CD), GNU Debugger, Docker, Kubernetes (K8S), Jupyter Notebook, Google Test (GTest)
Cloud Platforms: Heroku, Firebase, GitLab, GitHub
Web Development: Hugo, MongoDB, Express.js, React.js, Node.js, REST APIs
Software development skills: Object-Oriented Programming/Design, Multi-Threaded Programming, Design Patterns, UML diagrams, Clean Code, Agile/Scrum, Data Validation, Data Visualization

Work Experiences

Software Engineer | GallopWave Inc., Taiwan Aug. 2021 - July 2024
- Experienced in full Software Development Life Cycle (SDLC) for 2.5+ years, including planning, design, implementation, testing, deployment, and maintenance of software using Iterative Agile and Scrum methodologies
- Boosted road-level localization accuracy from 84% to 99.9+% using the Map Matching Algorithm (K-Nearest Neighbor Search, Hidden Markov Model, Viterbi Algorithm) implemented in C++ on Linux
- Designed extensible build system architectures for 4+ algorithms using Modern CMake
- Utilized Linux perf tool to identify, analyze, and address performance bottlenecks; reduced system and algorithmic time cost by 87+% using multithreading techniques
- Pioneered comprehensive unit tests with GTest for 4+ algorithm developments to ensure high-quality and reliable code
- Overhauled 5+ statistics and visualization toolkits using Python for algorithmic verification, dynamic tests, and performance analysis, resulting in a 25% reduction in testing time and improved accuracy by 15%
- Established GitLab-based CI/CD pipelines (YAML, Bash, Python, Docker, K8S) for automated testing and performance benchmarking; increased testing process efficiency by 95+% in a fast-paced development environment
- Coded a performance benchmark system covering framework design, database management, and error handling; improved the efficiency of release procedures by 75%
- Enhanced C++ code quality by 20+% through refactoring with Design Patterns (Factory, Skeleton, Strategy), Clean Code principles, and Object-Oriented Design and Programming
- Authored and maintained documentation for 3+ map-related products and 5+ testing software, including user manuals, technical specifications, and design documents; decreased communication costs between software engineers and project managers by 80+%
- Increased efficiency of ground truth manual labeling procedures by 87+% by designing an automatic labeling tool

Software Engineer | ASM Pacific Technology Ltd., Taiwan June 2020 - Aug. 2021
- Increased efficiency of a legacy system by 33+% through solving race conditions using locks, condition variables, and POSIX threads
- Contributed to documentation of test cases and error-handling scenarios; reduced communication costs by 50%
- Collaborated cross-functionally with assembling engineers, process engineers, computer vision engineers, and software managers to provide solutions

Selective Projects

Personal Portfolio Website | *Hugo, HTML, CSS, JavaScript, Golang, Git* July 2024
- Developed an impactful portfolio website using HTML, CSS, and JavaScript to showcase academic background, professional experience, and project highlights

Instagram Clone | *MongoDB, Express.js, React.js, Node.js, RESTful APIs, Git* July 2024
- Engineered 5+ full-stack features including real-time post updates, user authentication (signup and login) with JWT, and resource access control with authorization; deployed the website on the Firebase and Heroku
- Designed and implemented 3+ REST API endpoints using Node.js and Express.js
- Created a database for storing images and user data using MongoDB, Mongoose, and CRUD operations
- Implemented Model-View-Controller (MVC) framework to enhance code maintainability and extensibility