

KIWOONG EOM

Software & Full-Stack Developer | AI/LLM, Web3 and Applied R&D

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Software and full-stack developer using AI-assisted workflows to accelerate research, implementation and debugging across AI/LLM, Web3 and systems projects. Connects software to usable web services while retaining design review, reference comparisons and focused regression checks.

RELEVANT ENGINEERING PROJECTS

AI and LLM Web Services | Full-Stack Development and Deployment

- **Build and deploy AI/LLM services as browser-accessible applications**, connecting frontend interfaces, backend model integration and application workflows for practical use.

Programming Language and Compiler | Validated Core 1.0

- Developed a language/compiler through research, **execution-data analysis, review and revision**; compared CPU/native results and validated a fixed core through regression and offline-installation checks.

Universal Red-Team Engine | Security Testing and Platform Integration

- Built a multi-domain engine connecting vulnerability detection, authorized security testing, proof-of-concept records and reporting across web, network, application and LLM workflows.
- Integrated specialist tools through **common adapters** and **normalized results**, allowing supported capabilities to work as add-ons within a shared workflow.
- Developed **reproducible micro-collapse scenarios** for localized state changes; compared baseline and patched behavior, with separate **impact and recovery checks** in local test environments.

FHE and ZK | Independent IP Research | In Development

- Developing Rust/Python implementations for fully homomorphic encryption (FHE) and zero-knowledge proofs (ZK), combining encrypted computation and private verification with original integration work.
- Compared **independent reference calculations** with actual outputs, investigated input/boundary mismatches, **revised implementations** and added **focused regression checks**; preserved outputs and source identifiers for review.

Modular Trading Framework | Alpaca Integration

- Built an Alpaca-integrated Python framework with **replaceable strategy plugins**, separate risk checks and broker execution, and configurable shadow/paper/live routes; new strategies reuse shared data and order components.

CORE SKILLS

Python 3, Rust, AI-assisted development, full-stack web development, AI/LLM integration, Web3/blockchain R&D, deployment, service integration, adapter/plugin design, data analysis, debugging, regression testing, location-based web applications.

RELEVANT EXPERIENCE

Database Administrator, Korean United Methodist Church | Feb 2016 – Feb 2017

Petty Officer First Class, Republic of Korea Navy | Nov 2005 – Mar 2010

Analyzed weather and ocean sonar ranges, briefed and trained active-duty personnel, and developed an automated system to retrieve weather data and produce maps.

EDUCATION

Computer Specialist, Associate Degree — Savannah Technical College, Dec 2015

Networking Specialist, Associate Degree — Savannah Technical College, Dec 2015

Hotel and Food Management, Bachelor's Degree — Young-nam Cyber University, Jun 2013

RECOGNITION

Navy Top Achievement Awards in Ocean and Weather Analysis (2006) and Military Intelligence (2008), plus a Commendation Award (2007). Authored Southwest of Korea Climate Analysis (2007).