

JONGWOOK (ERIC) LEE

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EDUCATION

University of Maryland, College Park

Bachelor of Science in Computer Science, Minor in General Business

Expected Graduation: May 2027

GPA: 3.52/4.0

Relevant Coursework: Algorithms, Advanced Data Structures, Discrete Structures, Computer & Network Security, Database Design, Web Application Development

Awards & Honors: Joint Service Achievement Medal (Secretary of Defense), Dean's List

SKILLS

- **AI/ML:** LLM APIs (OpenAI), Prompt Engineering, AI Agent Development
- **Certifications:** AWS Certified Cloud Practitioner, AWS Solutions Architect – Associate (In Progress)
- **Languages:** Python, Java, JavaScript, SQL
- **Frameworks:** FastAPI, Node.js, React, Express.js, Socket.io
- **Cloud:** AWS (Lambda, EC2, S3, API Gateway, IAM)
- **Databases:** MongoDB, PostgreSQL
- **Tools:** Git, Postman

WORK EXPERIENCE

United States Forces Korea

KATUSA Sergeant (E-5), Provost Marshal Interpreter

Camp Humphreys, South Korea

October 2024 – April 2026

- Engineered a JavaScript document automation tool – tokenization engine, 160+ entry Korean legal dictionary, branching punishment logic – cutting criminal record processing from 3 days to 3 hours for 250+ weekly individuals; still active across 3 organizations.
- Selected as the sole Korean-English interpreter for a U.S. Army Colonel at a 4-star HQ; executed 50+ high-stakes bilateral negotiations with the ROK Army Provost Marshal General and Korean National Police, sustaining multinational operational continuity.
- Led 10 KATUSA soldiers to zero disciplinary incidents over 18 months; earned Outstanding KATUSA of the Month (Feb 2026), awarded to 1 of 150+ eligible personnel at USFK HQ.

PROJECTS

KELD (keld.vercel.app)

Python, AWS Lambda, FastAPI, React, OpenAI

- Architected a two-layer knowledge retrieval pipeline – domain-specific knowledge base of 160+ curated legal terms with LLM API fallback – minimizing OpenAI API costs by routing only unmatched queries to the paid endpoint.
- Launched a production AI-powered translation API on AWS Lambda + API Gateway with zero idle cost, serving Korean-English legal translation requests in under 5 seconds.
- Resolved cross-environment deployment failures by diagnosing a Pydantic binary mismatch and repackaging Lambda dependencies with Linux-compatible binaries, achieving 100% clean deployments across all environments.

Quorum (quorum-client.onrender.com)

Node.js, React, Socket.io, MongoDB, JWT

- Eliminated HTTP polling by establishing real-time vote synchronization across concurrent WebSocket sessions via Socket.io, reducing update latency to under 100ms.
- Optimized genre resolution latency by ~80% by parallelizing 5 concurrent TMDb API calls in the consensus algorithm, removing sequential fetch bottlenecks at peak concurrency.
- Debugged a distributed state desync bug in live WebSocket sessions by implementing a DB-first hydration layer, guaranteeing consistent vote history for all users joining mid-session.

Personal Portfolio Website (jwericlee.com)

JavaScript, HTML, CSS

- Developed a personal portfolio in JavaScript, HTML, and CSS, featuring live MLB Stats API integration, real-time Seoul timezone rendering, and a custom full-screen project overlay system.