

Eugene Cho

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EDUCATION

University of California, Davis
Bachelor of Science in Computer Science

Sep. 2022 – Jun. 2026

EXPERIENCES

Kaiser Permanente <i>Software Engineer Intern</i>	Jun. 2025 – Present
<ul style="list-style-type: none">Built and optimized backend services in Spring and Koa powering a NLP guided pre-visit survey system, scaling to over 500K monthly sessionsLed implementation of a School Note decisioning feature, introducing SOAP-based scaffold integration and employing a config-driven release agent pattern for scalability and maintainabilityDiagnosed and resolved a redis cache miss pattern in evisit retrieval, reducing external API calls by 99%	Remote
PNA Bio Inc. <i>Software Engineer Intern</i>	Sep. 2024 – Jan. 2025 Thousand Oaks, CA
<ul style="list-style-type: none">Developed and deployed web tools PNA Tool and PNA Designer on pnabio.com, exposing customer-facing endpoints for PNA sequence analysis and probe designBuilt a modular PHP-Python pipeline (CGI, HTML/CSS, shell scripts) for input validation and sequence scoring to automate internal PNA/CRISPR donor design workflows	
Seoul National University Medical School <i>Data Science Intern</i>	Jun. 2024 – Sep. 2024 Seoul, Korea
<ul style="list-style-type: none">Developed Python data pipelines for over 10M clinical and somatic mutation records using Pandas, NumPy, and SciPy, normalizing and aggregating datasets for oncology analysesImplemented variant-filtering and visualization scripts to compute allele frequencies and generate oncoprint-style heatmaps for cancer clonal model studies under Prof. Kim Jong Il at the Genomic Medicine Institute	

PROJECTS

Cattlelog <i>React, TailwindCSS, FastAPI, Redis, PostgreSQL</i>	Sep. 2024 – Present
<ul style="list-style-type: none">Built a full-stack course/professor insights platform with React, FastAPI, and PostgreSQL, reaching over 20K unique users and 3.2K+ monthly active usersRefactored search endpoints with partial matching, filtering, and indexed lookups, improving retrieval speed by 4xOptimized frontend rendering with react-virtual and backend performance with Redis caching and threadpool offloading, cutting API latency by 90% and redundant traffic by 99%, improving site uptime from 88% to 99.9%	
Korean Quiz <i>React, Hangul, SQLite3, Express.js</i>	Sep. 2024
<ul style="list-style-type: none">Developed a full-stack web application with React and ExpressJS to test Korean vocabulary and spelling, utilizing SQLite3 for database management	

TECHNICAL SKILLS

Languages: Python, C/C++, C#, Kotlin, SQL, Go, Java, JavaScript, TypeScript, HTML/CSS, R
Frameworks: React.js, Next.js, Express.js, FastAPI, Flask, TailwindCSS, Django, Linux/Unix, Spring, Spring Boot
Database and Cloud: PostgreSQL, SQLite, MySQL, DigitalOcean, Oracle Cloud, Oracle Database, Kubernetes
Developer Tools: Git, Github Actions, Docker, Bash, Posthog, Lens, Splunk, Dynatrace, Jenkins, Jest, Jtest
Methodologies: Scrum/Agile, Waterfall, Circular Development, DevOps, Object-Oriented Design, Unit Testing

ADDITIONAL

Relevant Coursework: Data Structures and Algorithms, Algorithm Design and Analysis, Computer Architecture, Operating Systems, Programming Languages, Databases, Bioinformatics
Awards: Eagle Scout Award, ACSL Intermediate Division Finalist, Ventura County Fire Department Citizen Award