

# Eugene Cho

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## EDUCATION

**University of California, Davis**  
*Bachelor of Science in Computer Science*

Sep. 2022 – Jun. 2026

## EXPERIENCES

<b>Kaiser Permanente</b> <i>Software Engineer Intern</i>	Jun. 2025 – Present
<ul style="list-style-type: none"><li>Built and optimized backend services in Spring and Koa powering a NLP guided pre-visit survey system, scaling to over <b>500K</b> monthly sessions</li><li>Led implementation of a School Note decisioning feature, introducing SOAP-based scaffold integration and employing a config-driven release agent pattern for scalability and maintainability</li><li>Diagnosed and resolved a redis cache miss pattern in evisit retrieval, reducing external API calls by <b>99%</b></li></ul>	Remote
<b>PNA Bio Inc.</b> <i>Software Engineer Intern</i>	Sep. 2024 – Jan. 2025
<ul style="list-style-type: none"><li>Developed and deployed web tools PNA Tool and PNA Designer on <a href="http://pnabio.com">pnabio.com</a>, exposing customer-facing endpoints for PNA sequence analysis and probe design</li><li>Built a modular PHP-Python pipeline (CGI, HTML/CSS, shell scripts) for input validation and sequence scoring to automate internal PNA/CRISPR donor design workflows</li></ul>	Thousand Oaks, CA
<b>Seoul National University Medical School</b> <i>Data Science Intern</i>	Jun. 2024 – Sep. 2024
<ul style="list-style-type: none"><li>Developed Python data pipelines for over <b>10M</b> clinical and somatic mutation records using Pandas, NumPy, and SciPy, normalizing and aggregating datasets for oncology analyses</li><li>Implemented 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</li></ul>	Seoul, Korea

## PROJECTS

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

## 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

**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

## ADDITIONAL

**Relevant Coursework:** Data Structures and Algorithms, Algorithm Design and Analysis, Computer Architecture, Operating Systems, Distributed Ledgers, Databases, Bioinformatics

**Awards:** Eagle Scout Award, ACSL Intermediate Division Finalist, Ventura County Fire Department Citizen Award