Jacob Klymenko

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EDUCATION

University of Washington — Tacoma, WA
*Bachelor of Science in Computer Science and Systems; **GPA:** 3.93* — *Expected Graduation: Aug. 2025*

WORK EXPERIENCE

Incoming Software Engineer Intern — June 2025 - Sep. 2025
Junt Industries — *Surprise, AZ*

Computer Science Grader — Mar. 2025 - June 2025
University of Washington — *Tacoma, WA*
- Evaluated Java projects for **35 students**, emphasizing correctness and object-oriented design principles.
- Provided clear, constructive feedback to enhance student growth and code quality in an Intro to Java course.

Software Engineer Researcher — Jan. 2025 – June 2025
University of Washington — *Tacoma, WA*
- Performed a Systematic Mapping Study as **first author**, analyzing **81** papers on autonomous drone security.
- Identified spoofing (**86%**) and network attacks (**80%**) as top threats; **46%** used machine learning for detection.
- Submitted findings to a **top-tier (A-ranked)** international conference in the field of software engineering.

PROJECTS

UMarket | *TypeScript, React, Node.js, Express.js, PostgreSQL, Docker, AWS S3* — Jan. 2025 – Apr. 2025
- Designed a scalable cloud-based database with Supabase PostgreSQL, boosting development speed by **30%**.
- Architected a microservices system with **4 services** improving modularity and maintainability.
- Integrated Google OAuth 2.0 for secure and seamless user authentication, reducing login friction by **50%**.
- Led **9 backend developers** in API development, code reviews, and feature implementation for internal services.

Grocery Store System | *TypeScript, React, Node.js, Express.js, MS SQL Server* — Feb. 2025 - Mar. 2025
- Built an inventory and checkout system handling **50,000+** daily transactions with <**40ms** average query time.
- Designed a **4NF**-compliant relational schema using ER diagrams, reducing data redundancy by **70%**.
- Developed user-friendly React forms boosting form submission success rate by **25%** with validation.

UWealth | *JavaScript, React, Node.js, Express.js, PostgreSQL, AWS S3* — Sep. 2024 – Dec. 2024
- Wrote a secure authentication system scaled for **20,000+ users** with JWT, bcrypt, and session management.
- Developed responsive login/register forms with real-time validation in React, reducing input errors by **20%**.
- Engineered APIs for user watchlists and integrated Alpha Vantage to display **5 time-series** of live stock data.

EXTRACURRICULAR

ML Engineer & Backend Developer — May 2025
UHackathon — *Tacoma, WA*
- Awarded **2nd place** out of 17 teams in the **largest** South Puget Sound hackathon with **100+ participants.**
- Leveraged a dataset of **5,000+** chest X-rays to develop a CNN-based pneumonia screening model with **92% accuracy**, integrated into the UHealth web app built with Streamlit, Flask, and SQLite.

Backend Lead — Sep. 2024 – Mar. 2025
Tech Startup Club — *Tacoma, WA*
- Co-led **20+ developers** through Agile sprints, driving collaboration in a fast-paced environment.
- Mentored teammates on version control, database design, and backend development to maintain high code quality.
- Coordinated **3** cross-functional teams to align design, development, and testing, ensuring timely project delivery.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Go, Java, Python, SQL, Dart, HTML/CSS
Frameworks: React, Node.js, Express.js, Next.js, Flutter, FastAPI, Flask, Streamlit
Developer Tools: Docker, AWS S3, Supabase, PostgreSQL, SQLite, Figma, Postman, Git, GitHub, Heroku, Vercel
Skills: Data Structures, Algorithms, Software Development Life Cycle, Agile (Scrum) Methodologies, Test-Driven Development, Full-Stack Development, RESTful APIs, Database Management, Microservices, Machine Learning