Luke Garci

lukegarci@gmail.com ◇ 480-244-1670 ◇ GitHub: lukegarci ◇ LinkedIn: lukegarci

Education

Oregon State University Expected Graduation: June 2026

Bachelor of Science in Computer Science | Minor Finance Corvallis, Oregon

- Honor Roll | GPA: 3.64/4.0
- Coursework: Data Structures & Algorithms, Software Engineering I & II, Digital Logic Design, Operating Systems I, Computer Networks, Machine Learning & Data Mining, Translators

Professional Experience

PC Builder & Seller West Linn, Oregon

Self-Employed 2018 - 2022

- Built and sold over 10 custom PCs by sourcing used and refurbished parts, reducing the costs by an average of 40% per build.
- Diagnosed and repaired hardware and software issues by troubleshooting system failures, improving performance and extending lifespan by 2+ years.
- Assisted 10+ customers by providing personalized recommendations and setup guidance, leading to positive reviews and repeat buyers.

Projects

FPGA Alarm Clock

SystemVerilog & ModelSim

- Designed an FPGA-based alarm clock system using SystemVerilog, optimizing time tracking and manual time adjustments, resulting in a reliable real-time embedded application with accurate time and alarm functionality.
- Developed key modules such as counters, comparators, and seven-segment display drivers, integrating them into a fully functional clock and alarm system, demonstrating expertise in digital logic and embedded systems design.
- Utilized ModelSim for simulation and testing, ensuring system functionality and synchronization between components, validating the alarm clock design and gaining proficiency in hardware/software interaction and embedded system debugging.

One-Time Pad Encryption System (Client-Server Application)

C

- Achieved secure communication between a client and server by implementing a one-time pad cipher in C, resulting in encrypted data transmission over TCP.
- Developed robust modules for key generation, encryption, and decryption by leveraging socket programming and file handling, ensuring error-free and efficient data processing.
- Enhanced system reliability by incorporating dynamic memory management and input validation, leading to secure and scalable application performance.

Restaurant Website Template

TypeScript, React, Java, Spring Boot, React Native, PostgreSQL

- Designed and implemented a full-stack restaurant management platform, using a React + TypeScript customer-facing website connected to a Spring Boot backend with a PostgreSQL database for menu, order, and customer data management, built for production deployment.
- Integrated Stripe API for secure payment processing, including order validation and payment confirmation workflows.
- Built a React Native staff application to manage incoming orders, update menu availability, and track order status in real time via REST API endpoints.
- Containerized frontend, backend, and database using Docker and Docker Compose, ensuring reproducible deployments, seamless local development, and simplified future cloud hosting.
- Designed database schema and backend architecture to support multi-restaurant scalability and real-time order updates, enabling expansion to multiple clients.

Technical Skills

C, Python, Java, TypeScript, React, Spring Boot, PostgreSQL, Git, Docker