Jackson Belanger

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EDUCATION

Georgia Institute of Technology Atlanta, GA
Bachelor of Science in Computer Science | GPA: 3.96 Expected May 2027
- Coursework: Computer Architecture, Networking & Processors, Artificial Intelligence, Data Structures & Algorithms

WORK EXPERIENCE

Software Engineer Intern May 2025 – present
Roblox San Mateo, CA
- Developed a custom Kubernetes controller using Go that orchestrates percentage-based rollouts for service deployments.
- Implemented an in-memory expectations store to verify desired state against live cluster state, enforcing cache consistency.
- Building a CLI tool that will allow ~2,000 engineers to securely deploy new service versions to company-owned data centers.

Software Engineer Intern June 2024 – Aug 2024
Fidelity Investments Boston, MA
- Engineered key features for Fidelity's career portal for applicants and recruiters using Java, Postgres, Angular, and Spring.
- Reduced load times by 40% by implementing caching with Redis, optimizing GraphQL queries, and improving server logic.
- Wrote Python scripts to automate recruiter workflows and candidate tracking, saving recruiters around 5 hours per week.

Software Developer Intern May 2023 – May 2024
Tree-Plenish Remote
- Developed a full-stack Flask web application, enabling rules-based app notifications and automated order tracking emails.
- Improved retention rate by 20% by analyzing the factors predictive of a client returning using Python, Pandas, and NumPy.

Software Developer Intern June 2023 – Aug 2023
Indigo Slate Seattle, WA
- Developed a project management dashboard for 150 employees with React, ensuring confidentiality by allowing workers to view only their assigned projects. Enhanced security and login flow by implementing Microsoft SSO for identity verification.

PROJECTS

Windows Virtualization Platform | C++, KVM, QEMU, libvirt, Linux, SPICE
- Engineered a virtualized Windows environment management system, featuring dynamic VM provisioning, persistent memory state with disk backing, and low-latency display streaming via SPICE. Allows users to use Windows through a web browser.

Five-Stage Pipelined RISC CPU | CircuitSim, Assembly, Digital Logic, Processor Design, Hazard Resolution
- Implemented a five-stage pipelined RISC CPU in CircuitSim, cutting execution latency through parallelization, a custom forwarding unit, and single-bubble load hazard resolution. Achieved a 4.6x latency cut over non-pipelined baseline.

Competitive Stock Trading Platform | React Native, JavaScript, TypeScript, Redux, Express.js, Node.js, MongoDB
- Built a highly engaging head-to-head stock trading platform. Implemented REST APIs and WebSockets for real-time data synchronization. Optimized system performance with efficient caching, data streaming, matchmaking, and trade processing.

ACTIVITIES & AWARDS

Quant Trading Analyst Jan 2024 – Dec 2024
Trading Club @ Georgia Tech
- Model sector ETFs' volatility surfaces based on the volatilities of the largest components with principal component analysis.
- Completed an intensive quantitative finance bootcamp covering options theory (Black-Scholes, Greeks), stat arb, and more.

3rd Place in Harvard Trading Competition March 2024
Harvard Undergraduate Quantitative Traders
- Competed in ranked games testing skills in market making, betting, mental math, and making decisions under uncertainty.

TECHNICAL SKILLS

Languages: Python, C++, C, Java, JavaScript, Go, Swift, TypeScript, HTML/CSS, SQL, GraphQL
Frameworks and Libraries: React, Angular, Node.js, Express.js, Spring Boot, Flask, React Native, Redux, Pandas, Redis
Developer Tools: Git, GitHub, Kubernetes, MongoDB, PostgreSQL, AWS, Docker, Firebase, Postman, Jenkins, Gradle
Concepts: Debugging, Optimization, Unit Testing, Databases, Cloud Computing, Web Services, Version Control, Agile, SOA