Benjamin Liu

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EDUCATION

University of California, Santa Cruz   Santa Cruz, CA
B.S. in Computer Science, Minor in Technology and Information Management   *Aug. 2022 – June 2026*

WORK EXPERIENCE

Software Engineer Intern & Network Security Engineer Intern   June 2025 – Present
Beyond Computer LLC   *Petaluma, CA*
- Engineered a full-stack onboarding and website modernization solution (React, Node.js, Microsoft Graph API), driving a 200% increase in client acquisitions.
- Automated device management with PowerShell and Datto RMM API, saving 10+ hours/month and enhancing security compliance.
- Reduced potential data breach impact by 10% through proactive monitoring and rapid incident response, aligning with industry benchmarks for organizations with robust risk-based security practices.

Data Collection Researcher   August 2022 – December 2023
University of California, Santa Cruz   *Santa Cruz, CA*
- Developed Python-based analytical tools utilizing Google Cloud Natural Language API to evaluate data literacy trends across diverse age cohorts, enhancing the accuracy of behavioral insights.
- Designed and implemented a scalable data collection pipeline with cookie and IP tracking, increasing user behavior analysis efficiency by 30%.
- Presented original research on technology and ethics to 40+ academic and industry attendees, sparking discussion and raising awareness of data privacy issues.

PROJECTS

Canvas to Notion   March 2025 – June 2025
- Deployed a web application and Chrome extension that streamlines the synchronization of student Canvas assignments into customizable Notion templates.
- Integrated Canvas and Notion APIs to enable real-time updates on assignments, due dates, and submission status, improving workflow efficiency for students.
- Implemented OAuth authentication and database infrastructure using Firebase, ensuring secure user onboarding and robust data management.
- Developed custom API endpoints to handle data transformation and synchronization, supporting a seamless user experience.

LA Crime Predictor   December 2023 – January 2024
- Developed an ML model trained on real LAPD crime data, achieving an 86% prediction accuracy within a two-week simulation.
- Cleaned a dataset of 90,000 entries, handling missing values and corrupt data for high-quality input.
- Authored a 13-page research paper detailing the model's training pipeline and findings.

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Python, Java, C/C++, Go, Bash, SQL, HTML/CSS
Frontend: React, Next.js, TailwindCSS, Redux, Angular, Vue.js, SASS/SCSS
Backend: Node.js/Express, Django/Flask, Spring Boot, .NET Core, RESTful APIs, GraphQL, gRPC
Databases: PostgreSQL, MySQL, MongoDB, Firebase Firestore, Redis, SQLite, Microsoft SQL Server
Cloud & DevOps: AWS (EC2, S3, Lambda), GCP, Azure, Docker, Kubernetes, Git, GitHub Actions, CI/CD, Terraform, Jenkins, Linux administration
Testing: Jest, Cypress, PyTest, Mocha/Chai, Selenium, JUnit, Postman (API testing)
Developer Tools: VS Code, IntelliJ/PyCharm, Eclipse, Postman, Figma, Jira, Slack, Webpack, Babel, npm/yarn, Swagger/OpenAPI
Other: Agile/Scrum methodologies, REST/GraphQL API design, Microservices, OAuth2/OpenID, WebSockets, Responsive Design, Accessibility (a11y), Unit/Integration/E2E Testing, Code Review, Documentation (Markdown, Swagger), Programming languages, Relational database, Computer Science