

DALTON LUCE

Boston, MA

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EDUCATION

Cornell University

Bachelor of Science in Electrical and Computer Engineering, Minor in CS

Ithaca, NY

Expected Winter 2026

- 4.048 GPA, Dean's List all semesters
 - **Honors:** Tau Beta Pi Engineering Honor Society, IEEE-HKN Honor Society
 - **Leadership:** Autobike Project Team Software Lead, Academic Team Lead for IEEE at Cornell Executive Board, Cornell Outdoor Education Student Athletic Instructor, Cornell Club Swim Vice President
 - **Relevant coursework:** Embedded Systems, Functional Programming, OOP and Data Structures, Digital Logic and Computer Organization, Computer Architecture, Computer Networks, Signals and Systems, Data Science, Differential Equations, Linear Algebra
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EXPERIENCE

Amazon Web Services

Santa Monica, CA

Software Development Engineer, Intern

May–Aug 2025

- Worked on the Managed Streaming for Apache Kafka (MSK) team, building internal tools that leveraged AWS services such as Lambda, DynamoDB, and IAM
- Designed and implemented an internal Java testing framework to automate key API test cases, saving 16+ developer hours per week and enabling CI/CD by unblocking the deployment pipeline
- Created a frontend tool for inspecting locally executed AWS Step Functions using Svelte, Tailwind, and Vite
- Gained experience with industry-standard tools such as LocalStack, Terraform, CloudFormation, and Insomnia

Raytheon

Woburn & Marlborough, MA

Software Engineer, Intern

Jun–Aug 2024

- Developed Perl tooling with Git and Docker to drive DevSecOps pipeline migration to GitLab, Jira, supporting over 1,000 developers
- Built NTP (Network Time Protocol) monitoring script to detect timing discrepancies across 300+ Linux systems
- Jira admin: Groovy scripting with ScriptRunner and Jira API to implement custom validations and checks across key workflow stages
- Validated C++ code pull requests for naval radar product branch by investigating automated test suite failures and radar simulations
- Utilized Grafana to analyze server downtime and resource allocation trends to inform data-driven improvements in the DevOps pipeline
- Jenkins admin: updated and debugged CI/CD pipelines for infrastructure stability, code validation, deployments, and resource scaling

Software Engineer, Intern

Jun–Aug 2023

- Enhanced system diagnostics of X-Band Radar software (1M+ lines of code) by resolving low-level messaging and queuing issues
- Gained proficiency in Ada, ClearCase version control, and Jenkins to correct radar functionality, validate using radar simulations
- Assisted in redeveloping a tool to simulate external messages and test radar capabilities
- Collaborated across teams of system engineers, validation teams, and software developers to align functionality with system requirements
- Participated in code reviews, sprint planning, and backlog refinement

Cornell Autonomous Bicycle Project Team

Ithaca, NY

Software Lead

May 2024–Present

- Define technical goals, project architecture, and allocate tasks for team of eight
- Collaborate with cross-functional teams, including hardware and mechanical subteams, to define data formats and integrate software
- Define team Docker and ROS infrastructure, streamlining development and integration with kinematic, optical, and LiDAR sensors
- Automate CI/CD pipelines to test, format, and execute code using GitHub Actions

Navigation Developer

Oct 2022–May 2024

- Contributed to repository with 25K+ lines of source code
 - Implemented optical flow and computer vision techniques to predict vehicle and pedestrian motion using OpenCV
 - Developed bicycle dynamics algorithms using NumPy to significantly reduce path finding search space
 - Collaborated with team of 10 to create Q-Learning collision avoidance algorithm
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SOFTWARE PROJECTS

Astroterm

- Developed a command line application to display real-time planetary and stellar positions
 - Achieved 1.4K+ stars and multiple contributors on GitHub; featured on multiple online articles and blogs
 - Designed and implemented C code to parse and display the Yale Bright Star Catalog, enabling real-time celestial data visualization
 - Created robust GitHub Actions workflow to automate code formatting, linting, coverage analysis, and release packaging
 - Packaged and distributed for major Linux distributions and package repositories, including Fedora, Nix, and Homebrew, enabling seamless installation across multiple platforms
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TECHNICAL SKILLS

- **Languages:** Python, C, C++, Java, Verilog, Groovy, OCaml, Ada, JavaScript/TypeScript/HTML/CSS, Bash
- **Tech Stacks:** Node.js, ROS, Svelte, AWS (Lambda, DynamoDB, S3, CloudWatch, IAM, Step Functions, MSK)
- **Developer Tools:** Git, Docker, Jenkins, Grafana, ClearCase, GitHub Actions, GitLab CI/CD