

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 Spring 2026

- 4.028 GPA, Dean's List all semesters
 - **Honors:** Tau Beta Pi Engineering Honor Society, IEEE-HKN Honor Society, James E. Rice Jr. First Year Writing Seminar Award Nominee
 - **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

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

Personal Website and Blog

- Built [personal website](#) and [coding blog](#) using Svelte, Node.js, TypeScript, OpenGL Shading Language
- Designed and implemented a dynamic, visually engaging gradient background by implementing radial basis functions with WebGL shaders
- Utilized differential equations of physical systems to implement reactive scrolling and mouse animations for icons and visual elements
- Developed an automated system to convert markdown files into fully formatted blog pages, streamlining content creation and ensuring consistency in presentation

Astroterm

- Developed a [command line application](#) to display real-time planetary and stellar positions
 - Achieved 600+ 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, streamlining development and deployment processes
 - 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
- **Developer Tools:** Git, Docker, Jenkins, Grafana, ClearCase, GitHub Actions, GitLab CI/CD