

# DALTON LUCE

Boston, MA

[LinkedIn](#)

[GitHub](#)

[daltonluce.com](#)

---

## 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
- 

## 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
- 

## 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
- 

## 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