

# Denver Cowan

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## Experience

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**SAS** **May 2025 – Present**  
*Associate Systems Engineer* *Cary, NC | Hybrid*

- Refactored application API interfaces to support migrations from on-premises SAS Viya 3.5 environments to Kubernetes-based SAS Viya 4.
- Diagnosed and corrected customer-reported defects across Angular, Rust/WebAssembly, APIs, authentication, networking, and containerized services.
- Wrote technical documentation covering application architecture, migration procedures, troubleshooting methods, and resolved defects for other engineers.

**Duke Code+ – Microsoft Sponsored** **May 2024 – Aug 2024**  
*Software Engineer Intern* *Durham, NC*

- Built a data-driven web application for the Durham Department of Veterans Affairs to improve prescription-pricing transparency for disabled veterans.
- Developed the backend with Ruby on Rails and PostgreSQL and the frontend with React and Next.js.

**Uber** **May 2024 – Aug 2024**  
*Software Engineering Fellow* *Remote*

- Selected as 1 of 50 fellows from more than 2,000 applicants for an engineering mentorship and technical interview program.
- Built and tested a custom data-structure library while receiving one-on-one mentorship from a senior engineering manager.

**U.S. Army** **Apr 2017 – Aug 2020**  
*Enlisted Soldier* *Fort Bragg, NC*

- Entered service as a Special Forces candidate and completed Infantry School, Airborne School, and Special Forces preparation and selection training before serving in the 82nd Airborne Division.
- Supported maintenance and accountability of mission-critical assets valued at more than \$50 million, ensuring accurate inventory records and regulatory compliance.

## Projects

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**Expression Interpreter in C** GitHub  
• Designed an EBNF grammar for a small expression language and implemented a recursive-descent parser in C.  
• Implemented lexical analysis, AST construction, tree-walk evaluation, and an interactive REPL.

**Unix Shell in C** GitHub  
• Built a Unix shell supporting command parsing, process creation, built-in commands, and I/O redirection.  
• Used Linux process primitives including `fork()`, `exec()`, `waitpid()`, and file descriptors.

**DenverCowan.com** denvercowan.com  
• Built a personal technical blog for project write-ups, technical deep dives, and lessons learned while studying software internals.  
• Created a custom Markdown-to-HTML content pipeline and GitHub Actions workflow to deploy site updates to Cloudflare from Git pushes.

## Education

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**Duke University** **Dec 2025**  
*B.A. in Computer Science | GPA: 3.5 / 4.0* *Durham, NC*

**Relevant Coursework:** Operating Systems, Computer Architecture, Computer Networking, Programming Language Concepts, Data Structures and Algorithms, Design and Analysis of Algorithms, Modern Software Development, Advanced Web Application Development, Theology and Business

**Activities:** Applied Machine Learning Group (Software Engineering Division), Student Veterans Association, Center for Christianity and Scholarship

## Technical Skills

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**Languages:** Python, C, Java, Go, Ruby, SQL

**Systems & Infrastructure:** Linux/Unix, Docker, Kubernetes, AWS, Azure

**Developer Tools:** Antigravity, Claude, Codex, Git, GitHub, GitHub Actions, Vim, VS Code, GDB, tmux

## Leadership & Service

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**Service to School** **Aug 2024 – Present**  
*Mentor* *Remote*

- Mentor veterans on personal narratives, application essays, resumes, and academic planning.

**Interests:** Systems Programming, Interior Design, Physical Fitness, The Great Outdoors, Reading and Writing