

# Landon Duba

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## EDUCATION

### Virginia Tech

Bachelor of Science, Computer Science

May 2027

GPA: 3.82/4.00

- **Coursework:** Data Structures & Algorithms, Software Design, Computer Architecture, Applied Combinatorics, Graph Theory, Linear Algebra, Multivariable Calculus, Probability & Statistics

## EXPERIENCE

### Scale AI

Oct. 2025 – Dec. 2025

GenAI Intern

- Engineered large scale LLM context protocol to select correct connecting tools, improving model trajectory
- Extended Python test framework to auto-filter incorrect SOTA model outputs, cutting invalid results by 30%
- Built Python script to validate model JSON outputs and enforce correct sequential tool calls during execution

### ManTech International

Dec. 2024 – Mar. 2025

Software Engineer Intern

- Developed a vehicle maintenance system using React and Python, under \$800M U.S. Army Contract
- Built an in-memory caching buffer pool for search results leveraging spatial locality in sequential queries
- Created a React component enabling users to sign documents, improving workflow for 50+ users

### Bloomberg

Oct. 2024 – Nov. 2024

Tech Lab Fellow

- Built a portfolio manager with real-time data flow between markets and active customers in Java
- Queried 10+ market exchanges to simulate the transmission of financial data at 1 second intervals
- Leveraged RabbitMQ to stream messages between producers and consumers in a simulated market

### Xcel Wetsuits

June 2024 – Aug. 2024

Software Engineer Intern

- Made an app with React, Python, and SQLite for cashiers to manage sales, storing 7,000+ orders
- Utilized React effect hooks to build a table that automatically re-renders based on selected suit filters
- Integrated app with Sheets API to reduce order fulfillment time and limit manual overhead

## PROJECTS

### Safety Map - VT Hacks | Python, Flask, React, Tailwind CSS, Pandas, NumPy

- Built a navigation app that integrates with Google Maps API to deliver the safest routes on a trip
- Applied grid binning to score each road on distance and safety for its longitude and latitude with Python
- Cleaned and parsed Virginia.gov dataset using Pandas to calculate safety scores for over 200,000 roads

### Discord Customization Extension | JavaScript, HTML, CSS

- Developed a Chrome extension that enhanced the Discord web client by enabling animated profile pictures, banners, and custom theme pop-outs for improved personalization
- Engineered client-side DOM manipulation and injected custom elements to Discord's user interface
- Published to the Chrome Web Store, achieving 100+ downloads and 2000+ impressions organically

## SKILLS

**Programming Languages:** Java, Python, C, JavaScript, TypeScript, Pascal, HTML/CSS

**Frameworks & Libraries:** React, Node.js, Flask, Django, JUnit, Pandas, NumPy, Matplotlib

**Developer Tools:** Git, Docker, SQL, Google Cloud Platform, Jira, Confluence, VS Code, IntelliJ, Eclipse