Reilly Bates

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Education
University of Colorado Boulder – M.S. Computer Science (*in progress, enrolled 2025*)
- Focus: Algorithms, Robotics

Miami University – B.S. Engineering Physics, Minor: Computer Science (*2014*)
- GPA: 3.79 | Cum Laude

Technical Skills
- Analysis & Modeling: Quantitative analysis of physical systems, data processing, algorithms, simulation (Comsol, Matlab)
- Software & Programming: Python, SQL, C++, Java, JavaScript, HTML/CSS, HPC, Linux, CLI, Agile, CI/CD pipelines
- UAS/Remote Sensing: FAA Part 107 Certified | UAS Remote Pilot (NWCG A-450)
- Computer-Aided Design, Finite Element Analysis (Comsol, AutoCAD, Abaqus)
- Other: Technical writing, research immersion, problem solving in complex systems

Experience

Research Engineer – Forest Geophysical LLC (2025)
- Leads R&D on technical projects, sources new research opportunities.
- Sources, develops and writes grant proposals to secure project funding.

IT Project Manager / Full-Stack Developer – Genetic Veterinary Sciences (*2020–2021*)
- Directed IT development projects, ensuring timely resolution of technical issues.
- Designed & delivered a novel full-stack web application for genetic data visualization using Nuxt-Vue, JavaScript (ES6), ELK Stack; integrated CI/CD workflows.
- Conducted system testing, verification, and coordination between developers & researchers.

Junior Software Engineer – In-Depth Engineering (*2014*)
- Developed simulation and software tools in support of engineering projects.
- Applied algorithms and data structures to defense-related applications.

Graduate Research/Teaching Assistant – Miami University (*2012–2014, 2016*)
- Conducted research in physics and computational methods.
- Delivered technical instruction in physics and engineering courses.

Research Capstone Project – KAIST, South Korea (*2013*)
- Designed & delivered a novel distributed wildfire sensor network using smart materials.

Wildland Fire Management Supervisor – WA Dept. of Natural Resources (*2023–2025*)
- Led teams of 4–8 personnel in dynamic, high-stress environments.
- Applied real-time data-driven decision making to tactical operations, logistics, and safety planning.
- Delivered technical instruction, mentorship, and formal training.

Certifications & Training
- UAS Remote Pilot (FAA Part 107) – GenPac Drones, 2023
- NWCG M-410 Facilitative Instructor – 2023
- NWCG Firefighter Type 1 (FFT-1), Incident Commander Type 5 (ICT-5)