

SALVADOR BUENADICHA CALVO

salvadorbu@vt.edu • (571) 215-0443 • salbu.xyz • github.com/salvadorbu

EDUCATION

Virginia Tech, Bachelor of Science in Computer Science, Minor in Mathematics

Aug 2021 — May 2025

- GPA: 3.9/4.0 (Department Rank 6 of 204)
- John L. Pratt Engineering Scholarship Recipient
- Honors College Norrine Bailey Spencer Strong Start Award Recipient

Courses: Software Design, Datastructures & Algorithms, Computer Organization, Computer Systems, Multivariable Calculus, Discrete Math, Linear Algebra, Combinatorics, Probability and Statistics for Engineers

TECHNICAL SKILLS

- **Programming Languages:** Java, Python, C/C++, TypeScript, HTML/CSS, Bash, x86, RISC-V
- **Tools/Tech:** Git, Docker, JUnit, MongoDB, Kafka, REST, VS Code, Neovim, AWS (S3, EC2, Lambda, CDKs)
- **Frameworks:** NumPy, Pandas, Spring Boot, Django, FastAPI, .NET, Tailwind CSS
- **Languages:** Fluent in English & Spanish

EXPERIENCE

Software Development Engineer Intern, Amazon

May 2024 — Aug 2024

SDE intern for job run lifecycle and dependency resolution team within the Business Data Technologies organization.

- Developed a service that deschedules non-actionable jobs, reducing ~1 million monthly polls to downstream services
- Deployed my service to live production, integrating into data platform with 170k+ customers
- Learned internal build system and key developer tools including CI/CD pipeline, AWS (Lambda, CloudFormation, VPC routing), and CDK for Infrastructure as Code (IaC)

Skills/Technologies: Java, TypeScript, AWS, IaC, CI/CD, Data Orchestration, Workflow Development

Software Engineer, Hybro

Oct 2023 — May 2024

Full stack founding engineer for AI startup.

- Assisted startup with fullstack development in Next.js, integrating the React frontend with MongoDB and our Kafka powered core service
- Developed novel framework for integrating custom fine-tuned LLMs into social media platforms

Skills/Technologies: TypeScript, Python, Next.js, React, Apache Kafka

Data Structures and Algorithms UTA, Virginia Tech

Jan 2024 — May 2024

Undergraduate teaching assistant for my university's advanced data structures and algorithms course.

- Assisted students with projects, homework, and conceptual questions during office hours and in course forum
- Assisted professor with grading, proctoring, and providing course feedback

Skills: Teaching, algorithm analysis, performance, graphs, sorting, hashing, design patterns, mutation testing

PROJECTS

QuickRead | *C, Linux API*

- Developed a high-speed, multithreaded pattern searcher for handling large databases and text files exceeding 20 GB
- Leveraged memory mapping to optimize memory usage and used the Boyer-Moore algorithm for pattern matching.

Course Curve | *Java, Spring Boot, MongoDB, React JS*

- Constructed a course registration tool, streamlining students' search for optimal course offerings
- Deployed a REST API using Spring Boot to dynamically rank class sections.
- Stored web-scraped professor ratings and university metrics in a MongoDB database for rapid retrieval
- Crafted a dynamic frontend interface using React JS, enhanced with Bootstrap CSS

Browser Eye Tracker | *Python, C++, Tobii Engine, Windows API*

- Leveraged Windows API (C++) to get data from eye tracking engine and created a Python ctypes DLL
- Integrated DLL with Selenium to outline HTML elements from user gaze, allowing users with physical impairments to navigate through web interfaces without a keyboard and mouse