

LUCAS DA CRUZ

SOFTWARE ENGINEER

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SKILLS

- **Languages & Frameworks:** Python, Java, C#, C++, Go, JavaScript/Typescript, Flask, FastAPI, Angular, Next.js, React, .NET, Spring Boot, Playwright, pytest
- **DevOps & Cloud:** Azure, AWS, Docker, Terraform, Bicep, Linux, CICD (Azure Pipelines, GitHub Actions, Circle CI)
- **Data & AI:** scikit-learn, Databricks, ETL, Azure Data Factory, Prompt Engineering, Machine Learning, PostgreSQL, MySQL
- **Other:** Git, Bash, GitHub CoPilot, Multithreading, Concurrency, Microservices, Tailwind CSS, Bootstrap

EDUCATION

Western Governors University || B.S. Computer Science || Millcreek, Utah

Aug 2024 – Sep 2025

Massachusetts Bay Community College || A.S. Computer Science || Wesley, Mass.

Sep 2023 – Aug 2024

(Transferred to WGU with a **4.0 GPA**)

WORK EXPERIENCE

Ecolab | Software Engineer

Jan 2022 - Present

- Led full-stack delivery of an Executive Business Review web application (.NET, Angular, Azure) used by 300+ global account managers and driving consistency in enterprise-level reporting and customer engagement
- Created internal CLI tools powered by LLMs to automate unit test generation and code documentation, reducing developer effort and improving code consistency
- Developed a Go-based RESTful service to schedule LLM prompt workflows, enabling readiness checks across engineering team backlogs
- Built an internal engineering analytics platform providing real-time insights into productivity, code quality, and delivery performance

Torchlight | Automation Contractor

May 2021 - Present

- Automated the end-to-end generation of 100+ dynamic Tableau utilization reports using Python and Selenium — reducing reporting time from 4 business days (that took two resources) to under 3 hours
- Built a multithreaded Python tool using concurrent I/O to audit hundreds of third-party links, improving the accuracy of enterprise training and documentation resources
- Designed and maintained robust, scalable automated test suites for cross-platform applications using modern testing frameworks, accelerating QA cycles and reducing regression defects
- Leading the migration from Selenium to Playwright, implementing concurrent test execution to accelerate test suite runtime significantly

Constant Contact | Associate Software Engineer

Aug 2021 – Jan 2022

- Engineered high-throughput batch processing pipelines using Spring Batch and RESTful API integrations, reducing processing latency by 40%
- Refactored critical backend billing workflows to adopt a RESTful API-first architecture, improving maintainability and decoupling services from legacy database dependencies

- Executed zero-downtime deployments to staging and production via CI/CD pipelines and automated scripts, enabling smooth delivery of business-critical releases
- Collaborated on building modern React micro-frontend applications that replaced and enhanced legacy customer billing and partner console platforms

PROJECTS

Professional (additional)

- **Backstage (Spring 2025):** Contributed to Backstage adoption by developing scaffolding templates that automated project setup with .NET services, Infrastructure as Code, and CI/CD pipelines. *Skills: Backstage, Node, PostgreSQL, Terraform, .NET, Azure*
- **Forge CLI (Spring 2025):** Built features for an internal Golang CLI that scaffolded Git repos, cloud resources, and CI/CD pipelines, accelerating new project onboarding. *Skills: Golang, COBRA CLI, API Integration, shell scripting, subprocess execution*
- **Turbo Remote Cache (Fall 2024):** Designed and implemented a remote cache server for Node packages, reducing CI build times by at most 90%. *Skills: Python 3, FastAPI, Docker, RESTful API, OAuth, Blob Storage*

Academic

- **Class Roster (Spring 2025):** Built a console-based C++ student roster app that parsed string-formatted data into objects, emphasizing object-oriented programming and array manipulation. *Skills: C++, object-oriented programming*
- **Hotel Booking App (Summer 2025):** Developed a Spring Boot + Angular web app enabling hotel booking with multithreaded backend operations. *Skills: Java, Spring Boot, Angular, Typescript, Multithreading*
- **Efficient Delivery Route Identifier (Summer 2025):** Designed a Python solution using hash tables and the nearest neighbour algorithm to optimize package delivery routes. *Skills: Python 3, hash table, nearest neighbour algorithm*
- **Walmart Sales Forecast (Summer 2025):** Built and optimized a Random Forest model on Kaggle's Walmart dataset, achieving 96% R^2 and <15% MAE for weekly sales forecasting. *Skills: Python 3, Random Forest, scikit-learn, hyperparameter optimization, Random Search, Machine Learning, Feature Engineering*

Personal

- **Personal Blog (Sep 2024 – Present):** My personal blog site, where I write about my academic journey as well as any cool technologies or interesting projects that I've been working on. *Skills: Astro JS, Typescript, Tailwind CSS*
- **Swift-Lite (In Progress):** Developing a lightweight OpenStack Swift clone to explore distributed storage concepts, with a focus on storage nodes, proxy APIs, and replication mechanisms. *Skills: Python 3, RESTful API, Distributed Systems, Concurrency, File I/O, Docker, Linux*

CERTIFICATIONS

Linux Essentials Certificate

ITIL® Foundation

WGU Certificate: Back-End Developer

WGU Certificate: Java Developer

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