­ Lakelon Bailey

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EDUCATION

**University of Tennessee, Knoxville**

Major in Computer Science

Minor in Mathematics

Graduation: May 2025

Dean’s List: Fall 2022 through Spring 2024

**Vanderbilt University Boot Camps**

Full-Stack Web Development Bootcamp

Graduated September 2022

Grade: A

SKILLS

**Programming Languages**

C/C++, JavaScript/Node.js, Python, Java, HTML, SQL, CSS

**Tools and Frameworks**

**Soft Skills**

Communication, Leadership, Project Management, Adaptivity, Teaching, Self-starting, Written communication, Teamwork, Agile Methodology, Client Communication

PROJECTS

[**sso.lakelon.dev**](https://github.com/LakelonBailey/sso.lakelon.dev): Custom SSO system to be used with a network of future personal projects.

[**Blender Bee Swarm**](https://github.com/LakelonBailey/BlenderBeeSwarm): Bee pollination animation using Particle Swarm Optimization.

[**Particle Swarm Visualization**](https://github.com/LakelonBailey/ParticleSwarm): Using Particle Swarm Optimization to create 2D shapes.

[**FragranceFinder**](https://github.com/LakelonBailey/FragranceFinder): Best-price finder for fragrances using data from 10+ fragrance sites.

[**Memebook**](https://github.com/LakelonBailey/Memebook)**:** Meme social media that allows users to create/like/comment memes and interact with friends.

[**lakelonbailey.com**](https://github.com/LakelonBailey/lakelonbailey.github.io)**:** Persona portfolio website.

WORK EXPERIENCE

**Data Software Engineer Intern, IBM August 2023 – Present**

* Providing device usage data insights and analytics to stakeholders in the Telemetry squad to power device provisioning decisions.
* Maintaining data pipelines and infrastructure to support reporting and analytics across Devices@IBM.
* Led the introduction of IBM’s Carrot Framework to the Devices Data Insights team, resulting in productivity enhancements and improved codebase structure for data pipelines and reporting.
* Developed a data pipeline from the device telemetry client to IBM Cloud Object Storage to backup historical device usage data and provide data infrastructure for the Telemetry squad of Devices@IBM.
* Developed a data pipeline from ServiceNow to IBM Cloud Object Storage that runs daily and transfers over 4 million rows from over 10 database tables.
* Migrated existing data pipelines to the IBM Carrot Framework, leading to overall improvements in readability, documentation, and codebase structure.

**Software Engineer, ACTprep.com, Inc. May 2022 – Present**

* Leading the software engineering team of ACTprep.com.
* Designed the entire architecture and database of the ACTprep.com company software.
* Developed powerful company software that reduced annual labor/supplies costs by over $50,000 and increased the total number of students an individual coach can mentor by over 100%.
* Worked side-by-side with the President of ACTprep.com to fully migrate all ACTprep.com internal processes and data management over to a web application developed from scratch in six months.
* Successfully interviewed, hired, and trained a Software Engineering Intern.

**Technical Lead, Hack4Impact UTK August 2023 – May 2024**

* Led a team of five student software developers in the creation of a map-based data visualization software designed to provide insights to United Way of Greater Knoxville (UWGK) on where to direct funding/grants based on community support demographics.
* Held periodic meetings with UWGK stakeholders to ensure that the project is following their guidelines and expectations.
* Held weekly programming workshops focused on a Next.js stack based on the MERN stack (MongoDB, Express, React, Node). These workshops prepared my team to develop software efficiently and professionally for UWGK.

**Full-Stack Software Engineer Intern, IBM May 2023 – August 2023**

* Contributed to the strategic re-architecture of a global Vue.js/Spring Boot application that facilitates over 315k users, including all IBM employees.
* Refined and implemented modern authentication and authorization mechanisms, significantly improving system security and user experience by ensuring the right access controls for various user roles.
* Re-organized and optimized data retrieval, leading to a 68% reduction in on-page-load API calls.

NodeJS

Docker

Express

Django

React

Vue

Unix

Digital Ocean

AWS S3

MySQL

MongoDB

PostgreSQL

Spring Framework

Linux