

# Lakelon Bailey

[lake.bailey@icloud.com](mailto:lake.bailey@icloud.com) | [lakelonbailey.com](http://lakelonbailey.com) | [github.com/LakelonBailey](https://github.com/LakelonBailey) | [linkedin.com/in/lakelonbailey](https://linkedin.com/in/lakelonbailey)

## EDUCATION

### University of Tennessee, Knoxville

BS in Computer Science

Minor in Mathematics

Graduation: May 2025

Dean's List: Fall 2022, Spring 2023

### Vanderbilt University

Full-Stack Web Development Bootcamp

Graduated September 2022

Grade: A

## COURSEWORK

Data Structures and Algorithms

Systems Programming

Algorithm Analysis/Automata

Linear Algebra

Numerical Algorithms/Scientific Computing

Multivariate Calculus

Differential Equations

## SKILLS

### Programming Languages

C, C++, RISC-V Assembly, JavaScript,

Python, Java, HTML, SQL, CSS

### Tools and Frameworks

Git Digital Ocean

NodeJS AWS S3

Google Cloud MySQL

Express MongoDB

Django PostgreSQL

React REST APIs

Vue Spring Framework

Unix Linux

### Soft Skills

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

## PROJECTS

**app.actprep.com:** Web application that serves as the backbone for all internal processes of ACTprep.com, Inc.

**Memebook:** Meme social media that allows users to create/like/comment memes and interact with friends.

**lakelonbailey.com:** React app that demonstrates my frontend capability while providing a detailed display of my skills and experience.

**ACTprep.com Enrollment App:** An application that gathers necessary information from newly enrolled students before they begin the ACT prep program.

## WORK EXPERIENCE

### Data Software Engineer Co-op, IBM

August 2023 - Present

- Designing and implementing a robust pipeline to rapidly transport 4,000,000+ records across 10+ tables from ServiceNow to IBM Cloud Object Storage.
- Leading 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.

### Software Engineer, ACTprep.com, Inc.

March 2023 - Present

- Managing the technology division of ACTprep.com.
- Leading the development and maintenance of the ACTprep.com web application: an application designed to receive and process all company data for the purpose of coaching, analytics, student progress monitoring, and more. This application serves approximately 100 daily users and involves over 30 unique database tables.
- Improving the scale of the company by increasing the total number of students a coach can mentor by over 100%.
- Consistently decreasing company costs, having reduced annual labor/supplies costs by over \$50,000.

### 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.
- Lead a pivotal role in the transformation of the application from a monolithic design to a microservices-based structure.
- 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.
- Reduced on-page-load API calls by 68% by re-organizing and optimizing data retrieval.

### Software Engineer, Make Me Modern, Inc.

August 2022 - March 2023

- Managed and developed the ACTprep.com web application project.
- Assisted in backend and frontend development for assorted company projects.
- Accelerated the primary data query speed of <https://postageapi.com/stats/> page by over 99%.
- Developed a data pipeline to fully migrate a MySQL database to a MongoDB Atlas Cluster while maintaining table relationships for a database containing over 150,000 total records.

### Software Engineer, ACTprep.com, Inc.

May 2022 - August 2022

- Developed a web application that utilizes the Google Sheets API to store student enrollment data provided by new students as they traverse through the application's enrollment process.
- Streamlined the ACTprep.com enrollment process by relieving the enrollment coordinator of the need to retrieve student enrollment data through text communication.
- Facilitated the enrollment process of over 100 students using this application.

## INVOLVEMENT

- University of Tennessee Swimming Club - Member
- University of Tennessee Hack4Impact - Tech Lead