

## ABOUT

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Passionate Software Engineer with two years of professional experience at IBM and ACTprep.com. Proven track record in full-stack development and data engineering, delivering strong leadership and lasting business impact.

## SKILLS

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**Languages:** Python, JavaScript/TypeScript, Java, C++, C, SQL, HTML, CSS

**Software:** Git, Django, React, Docker, Node.js, PostgreSQL, MongoDB, Spring Boot, Nginx, Pandas, Numpy

**Platforms:** AWS (S3, EC2), IBM Cloud (Object Storage, CloudPak for Data, Watsonx.data)

## WORK EXPERIENCE

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### IBM

Austin, TX and Raleigh, NC

*Software Engineer Intern*

*May 2023 – Present*

- Developing end-to-end software for Devices@IBM, including a full-stack application that supports employee device-related operations, data pipelines to support the web application, and exploratory data analysis to inform device provisioning decisions.
- Developed a Python service that supports all data pipelines and reporting related to employee device tier assignment, leveraging data from IBM DB2, PostgreSQL, and ServiceNow.
- Migrated 100% of all regular Devices@IBM data pipelines to the same Python data science framework, leading to significant improvements in code maintainability and professionalism.
- Increased the data transfer speed of a crucial data pipeline by 12mb/s (300%) by developing a multi-threaded REST API batch processing solution in Python, successfully replacing a sunsetted technology.
- Re-architected a Vue.js client application and implemented a modern SSO system, leading to a 68% reduction in on-page-load API calls, a 50% reduction in build size, and a 99% reduction in login-related support tickets, impacting over 315,000 users.

### ACTprep.com

Remote

*Software Engineer*

*May 2022 – Present*

- Founded and currently leading the software engineering team at ACTprep.com, including continuous design, development, and maintenance of features to support over 130 daily active users and over 1,000 users all-time.
- Developed over 95% of all company software, focusing on automation and powerful data analytics, leading to a \$50,000 reduction in labor and supply costs, a 67% increase in student-per-coach capacity, and enabling the company to scale to 6 additional states.
- Designed entire company software infrastructure, including a Django/PostgreSQL backend API, a Docker network of React apps served by nginx, and an AWS S3 instance to facilitate backups and media file storage.
- Developed numerous features that have revolutionized company processes, including a student monitoring dashboard for parents, multiple analytics dashboards for coaches, a fully-automated enrollment process, a student program builder, a mock ACT testing solution, and a comprehensive student app featuring performance metrics, text reminders, a daily schedule, fully-digitized curriculum, a digital answer sheet, and a practice test analysis tool.

## EDUCATION

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### University of Tennessee, Knoxville

Knoxville, TN

*B.S. in Computer Science*

*Aug 2020 – May 2025*

- **Minor:** Mathematics
- **Coursework:** Data Structures & Algorithms, Systems Programming, Software Engineering, Numerical Algorithms, Computer Graphics, Biologically Inspired Computation, Operating Systems, Programming Languages & Systems

## LEADERSHIP/INVOLVEMENT

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### Hack4Impact

University of Tennessee, Knoxville

*Director of Engineering*

*May 2024 – Present*

- Leading the engineering division of Hack4Impact UTK. Holding weekly check-ins with project teams to ensure projects are progressing smoothly and professional development standards are being met.

*Technical Lead*

*August 2023 – May 2024*

- Led a team of five developers in creating a geospatial data visualization tool for United Way of Greater Knoxville