

Cole Sandlin

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SKILLS

Languages: Python, C, C++, Java, JavaScript, SQL, R, HTML, CSS

Technologies: Git, Node.js, React Native, pandas, NumPy, Matplotlib, R Shiny, Hugo

EXPERIENCE

Software Engineer

Aug 2024 – May 2025

U.S. Environmental Protection Agency (via ORAU)

Cincinnati, OH

- Developed and maintained drinking water treatment performance models in R and Python, informing regulatory decision-making processes
- Enhanced model performance using optimization techniques such as vectorization, leading to a 300% reduction in execution time
- Created an R-based tool to compile and filter data from multiple sources, streamlining the workflow of researchers
- Identified and resolved critical bugs causing system crashes, increasing application stability
- Refactored code by extracting reusable components, improving code readability and maintainability

Physics Peer Tutor

Jan 2020 – May 2020

University of Kentucky

Lexington, KY

- Provided drop-in peer tutoring for a variety of university-level physics courses
- Led small groups of students in mastering course concepts, completing assignments, and developing effective study skills

PROJECTS

Pharmacy Quiz App

- Designed a React Native-based mobile application, in collaboration with the National Association of Boards of Pharmacy, to act as a study tool for pharmacy students
- Implemented a Cloud Firestore database to store and serve user-generated content

Streamflow Module for MagicMirror²

- Developed a smart mirror module using Node.js to display various water data for the user's current location
- Used REST API calls to the U.S. Geological Survey's Instantaneous Values Service to obtain real-time data

Portfolio Website

- Built a static website with Hugo to showcase projects and deployed it on GitHub Pages
- Implemented custom HTML and CSS elements to enhance user interface design

EDUCATION

University of Kentucky

Lexington, KY

Bachelor of Science in Computer Engineering

May 2023

Minors in Computer Science and Mathematics