Lauren Hyde

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Education

University of Illinois at Urbana-Champaign May 2026
Bachelor of Science in Computer Science *GPA: 3.97/4.0*

Skills

Languages: Python, JavaScript, TypeScript, C++, C, Java, HTML, CSS, SQL, R
Tools: React.js, Express.js, Git/GitHub, Flask, Node.js, MongoDB, Jest, Neo4j, Pandas, OpenCV, Linux, Android Studio

Experience

d7 Data Science Research Collaborative | **Back-End Developer** Oct 2023 - Present
- Helped create the Data Science Mastery Platform, a virtual learning platform based in Express.js, TypeScript, HTMX, and Node.js used by over 1,000 students each semester in UIUC coursework
- Designed an API for running and grading student python code, debugged live issues, improved database integration using Sequelize.js, and created unit tests with Jest to contribute to platform robustness and scalability
- Automated the issuance of LinkedIn certificates to students, adding a new MicroCredentials interface for instructors

PayPal | **Software Engineering Intern** Jun 2024 - Aug 2024
- Developed a tool to centralize regulatory compliance information using retrieval augmented generation
- Engineered an automated pipeline in Python to ingest production code into Neo4j knowledge graph relationships
- Built a React.js user interface in which users can customize output format to their preferences, maximizing utility
- Designed a hybrid information retrieval method with Neo4j Cypher queries and custom vector searches specialized to specific compliance subdomains to find and filter relevant information

Hack4Impact | **Full-Stack Developer** Aug 2023 - Present
- Collaborating with nonprofits to build software solutions for social good, including the following projects
- *InclusiveSTEM*: developed a digital library of accessible educational materials for people with disabilities; built out end-to-end organization verification flow with ChakraUI, React.js, TypeScript, MongoDB, and Express.js
- *OpenAQ*: created an educational website to interface with OpenAQ's API, providing AQI information across different regions and informative visualizations with Solid.js, TypeScript, and SCSS styling
- *Dyslexico*: built a mobile text editor with custom typo suggestions for people with dyslexia, creating dynamic accessible components for navigation and text manipulation using React Native with TailwindCSS

TJHSST Computer Systems Research Lab | **RoboBoat Groundstation Lead** Aug 2022 - Jun 2023
- Built a fully autonomous robotic boat capable of completing various navigation tasks using computer vision
- Led the Groundstation team in developing a web interface for monitoring and control using Flask, HTML, and CSS

Projects

PickMe: Restaurant Recommender | *React.js, Flask, Python, TypeScript, MongoDB, Git* Jan 2024 - May 2024
- Developed a full-stack web app using KMeans clustering to recommend restaurants based on cuisine preferences
- Leveraged Geolocate and Google Places APIs to personalize results to the user's current location
- Designed a user management system using Google OAuth and MongoDB to store user's preferences and history

Classi | *Express.js, Node.js, SQL, HTML, CSS, JavaScript, Google Cloud Platform, Git* Jan 2024 - May 2024
- Created an application to allow students to rank and save their favorite UIUC courses and view class data
- Implemented SQL database integration from multiple data sources with advanced data-driven functionalities like dynamically-updated keyword search, auto-saving courses by custom criteria, and analytics dashboard

SpotifAI | *JavaScript, HTML, CSS, Spotify API, Git* Mar 2023 - Jun 2023
- Designed and built interactive web interface to synthesize and display statistics from a user's Spotify account
- Analyzed data from the Spotify API to provide users with insights on listening patterns for multiple time periods

Relevant Coursework

Web App Development, Mobile App Development, Systems Programming, Computer Architecture, Software Design Lab, Systems Programming, Database Systems, Data Structures, Artificial Intelligence 1&2, Computer Vision 1&2, Text Information Systems, Calculus III, Discrete Mathematics, Linear Algebra, Research Statistics 1&2