

# Kate Homes, Software Developer

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## EDUCATION

Kettering University, Flint, MI

October 2021 - June 2025

Bachelor of Science, Computer Science

- Major: UI/UX Design, Cloud Computing, Software Engineering, Database Systems
- Concentration: Game Design, VR, Computer Graphics, Business of Video Game Production

## WORK EXPERIENCE

Grid LLC, Troy & Romeo, MI

January 2022 - October 2024

*Software Developer Co-op*

- Developed and maintained Service Library, a web application used by Stellantis dealership technicians for vehicle repair assistance, parts lookup, and replacement recommendations.
- Implemented an Apache Solr-powered search engine, replacing direct database queries with spell-check, synonym matching, and improved ranking algorithms, enhancing search accuracy and technician efficiency.
- Assisted in migrating search queries from RDBMS to Solr, reducing database load and improving response times for parts lookup.
- Designed and deployed an automated data promotion system using Amazon S3, streamlining data movement between servers and reducing manual intervention.
- Thesis Project: Led a data storage optimization initiative by converting rarely accessed RDBMS records into Parquet flat files for deep storage, reducing database overhead and improving retrieval efficiency.
- Developed and optimized JSP (JavaServer Pages)-based user interfaces with jQuery and SCSS, enhancing usability, accessibility, and performance for dealership technicians.
- Built and maintained CI/CD pipelines with Jenkins, ensuring smooth software releases with minimal downtime.
- Managed SQL databases (MySQL/MariaDB), improving data processing speed and query efficiency through indexing and optimization.
- Integrated AWS services (S3, Lambda, EC2) for cloud-based hosting, deployment, and security.
- Began full-time (40 hrs/week) on-site before transitioning to a hybrid schedule (2 days in-person, 3 days remote) in final year, collaborating with distributed teams via GitHub, Jira, and Slack.

## PROFILE

Full Stack Software Developer with 3+ years of experience building scalable, user-focused web applications using Java (Spring Boot), JavaScript (Next.js, React, TypeScript), and AWS. Passionate about UI/UX design, responsive front-end development, and accessibility. Skilled in SCSS, Tailwind CSS, Figma, and integrating RESTful APIs for seamless user experiences. Experienced in SQL databases, cloud storage (Parquet, AWS S3), and CI/CD pipelines (Jenkins, Docker).

## EXTRA-CURRICULAR ACTIVITIES

Berkley Robotics FRC Team, Berkley MI

January 2018 - December 2019

*Programming Lead*

- Led a team of 5 developers in designing and implementing autonomous and teleoperated systems using Java/C++/Python.
- Developed real-time robot control algorithms, improving accuracy and efficiency in competition challenges.
- Collaborated with hardware & mechanical teams to integrate software with electrical and mechanical systems

## SKILLS

- Programming: Java (Spring Boot, REST APIs, Hibernate), JavaScript (React, Next.js, TypeScript, jQuery, ES6+), C#, C++, Python
- Frontend Development: HTML, CSS, SCSS, Bootstrap, Tailwind, UI/UX Design, Figma, JSP (JavaServer Pages)
- Backend & Databases: SQL, API Development, Apache Solr, Parquet, Database Optimization
- Cloud & DevOps: AWS (S3, Lambda, EC2), Docker, Jenkins, CI/CD Pipelines
- Tools & Methodologies: Agile/Scrum, Git, Atlassian Suite (Bitbucket, Confluence, Jira)