

# MICHAEL LESS

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Ames, Iowa

## EDUCATION

**Iowa State University**  
*Bachelor's of Science, Software Engineering*

**2020 - 2024**  
GPA: 3.72/4.00, Dean's List

## WORK EXPERIENCE

**Iowa State University** **Ames, IA, USA**  
*Undergraduate Research Intern* *Summer, 2023*

- Developed and deployed erasure coding experiments on Amazon EC2 clusters to study data storage and recovery strategies
- Analyzed test data and collaborated with senior researchers to evaluate fault-tolerant erasure coding techniques
- Participated in regular team meetings and discussions to contribute ideas, provide progress updates, and offer insights for further research directions

## PROJECTS & OUTSIDE EXPERIENCE

### Iowa State Gameday App

- Developed a football game-day app in Android Studio using Java, while working in an agile team environment
- Developed primarily on the frontend in Android Studio; developed various features such as a roster and schedule, editable by authorized users, and a map using the Google Maps API
- Leveraged GitLab's code review features to manage merge requests, resulting in improved quality of code, early bug detection and increased knowledge sharing across the team
- Implemented and managed GitLab CI/CD pipelines, automating build, test, and deployment processes
- Collaborated with three team members to fully implement the app; adhered to multiple requirements and deadlines, sprints
- Tested the functionality of the entire project, including system and unit tests using Espresso, a testing framework built for Android Studio, extends JUnit
- Utilized JSON HTTP requests for communication between the front and back ends

### CyBot Project

- Designed numerous functionalities of an iRobot Roomba using a microcontroller during a semester-long project, from low level bit changes to algorithms for navigating an obstacle course
- Implemented a number of programs for the Roomba related to the gathering and processing of raw data given by various custom added IR and Ping sensors
- Worked together with four team members to successfully and quickly navigate autonomously through an obstacle course to a goal using various scanners and sensors
- Achieved a full score in the navigation of the course

### Class Scheduler

- Created an application for use by the Iowa State academic advisors to schedule new classes around the expected availability for the target student demographic
- Worked in an agile, scrum team environment with 5 team members
- Fulfilled the requests and specifications of a faculty member representative
- Developed using the Electron framework, with an SQLite database

## SKILLS

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

**Frameworks/Tools:** GitLab/GitHub, React, Electron, Android Studio, AWS

**Testing:** Jest, Mocha, Espresso, JUnit

**Methodologies:** Agile, Scrum, CI/CD