

# Ben McAllister

Senior Software Developer

[McAJBen@gmail.com](mailto:McAJBen@gmail.com) @  
[LinkedIn.com/in/McAJBen](https://www.linkedin.com/in/McAJBen) in  
[GitHub.com/McAJBen](https://github.com/McAJBen) G  
[McAJBen.com](https://McAJBen.com) G  
734-680-5748 M

## Summary

Agile developer with 5+ years of experience building solutions based on solid practices and robust designs. Currently in the point of sale industry managing codebases that deploy to 15,000+ POS terminals which process 80,000,000+ transactions per year. Background in architecture design, data structures, functional programming, parallel computing, and testing.

## Experience

### 365 Retail Markets

*Senior Mobile Developer*

*March 2024 - Present*

- Performing Impact Analysis on upcoming projects to minimize time to delivery and technical debt.
- Working along side Product management to identify and solve customer issues.
- Managing multiple Git repositories, CI/CD pipelines, and code reviews for a team of 7.

*Mobile Developer*

*Apr 2021 - March 2024*

- Supported products like [PicoMarket/Cooler](#) and [365Pay](#) using Android and React-Native.
- Helped to design architecture for cross-company API interfaces using Retrofit.
- Oversaw production issues and triaging solutions for over 20% of the companies terminals.
- Integrated with multiple third party companies for payment processing in United States, Canada, United Kingdom, and European Union.
- Incorporated existing A.I. product recognition technology into [PicoStockwell 2.0](#).
- Expanded basket calculation logic to handle value added tax rates for international sales.
- Refactored UI to simplify user flows, reduce code debt, and increase performance.

*Junior Mobile Developer*

*Aug 2019 - Apr 2021*

- Built software distribution system for timely terminal updates and status events. Reducing time to deployment and product downtime.
- Created products that integrate with external company technology like [PicoCoolerBreeze](#).

*Mobile Development Intern*

*May 2019 - Aug 2019*

- Introduced self-setup software tools for Android POS terminals. Decreasing the cost, time to delivery, and complexity for new deployments.
- Updated Jest testing systems for React-Native application to improve code quality.

### University of Michigan

*Grader*

*Jun 2018 - May 2019*

- Worked alongside professors in grading students in junior level computer science courses including Java Programming, Data Structures & Algorithm Analysis, and x86 Assembly.

## Education

### University of Michigan - Dearborn

Bachelor of Science in Software Engineering.

*Sep 2017 - Dec 2019*

### Oakland Community College

Associate in Applied Science degrees in Software Engineering and Technological Sciences.

*Sep 2014 - May 2017*

## Skills & Tools

- |                      |                      |                             |
|----------------------|----------------------|-----------------------------|
| - Agile Development  | - Google Firebase    | - React                     |
| - Algorithm Analysis | - Gradle             | - React-Native              |
| - AWS                | - HTML               | - Retrofit                  |
| - Azure DevOps       | - IntelliJ           | - Rust                      |
| - C#                 | - Jest               | - Spring Boot (Kotlin/Java) |
| - C++                | - Kotlin/Java        | - SQL (MySQL/SQLite)        |
| - Codacy             | - LaTeX              | - Tailwind                  |
| - CSS                | - Linux              | - TypeScript/JavaScript     |
| - Deno               | - Native Android/iOS | - VSCode                    |
| - Express (Node.js)  | - NGINX              | - x86 Assembly              |
| - Git                | - Python             |                             |

## Additional Projects

- **Flow Solver:** Rust Algorithm to solve *Flow Free* games in seconds using backtracking.
- **GPU Crawler:** Custom Rust web scraper to periodically check for Graphics Cards during the shortage of 2021.
- **Advent of Code Solutions:** Public repository with Rust solutions to Advent of Code.
- **Minesweeper AI:** Algorithm that uses linear algebra to solve minesweeper (Java).
- **C++ Code Smell Visualization:** Script that identifies unsound C++ code (Python).
- **Dungeon Board:** Standalone application for board games that displays on another screen with fog of war and multiple image layers (Java).
- **PushPoint:** App that serves ads using geofencing (Android/Firebase/Java/JavaScript).