

# Michael Lorenz

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## EDUCATION

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### Southern New Hampshire University

Aug 2023 – May 2025

*Bachelor of Science in Computer Science — GPA: 4.0 — Currently Enrolled Online*

*Manchester, NH*

### Montgomery County Community College

Jun 2021 – May 2023

*Associate in Computer Science — GPA: 3.9 — Summa Cum Laude*

*Blue Bell, PA*

**Relevant Coursework:** Data Structures & Algorithms, Client/Server Development, Full Stack Development, SDLC w/ Agile, Software Security, Testing/QA, System Design, Linear Algebra, Mobile Programming, Calculus, Discrete Math, Probability & Stat

## PROJECTS

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### School

#### Inventory Tracker Mobile App | *Java, SQLite, Android Studio*

Dec 2024

- Developed an Android inventory management app with warehouse management functionality for user authentication, adding and modifying items, and sending zero-stock SMS notifications.
- Designed and built a user interface to provide a responsive and intuitive user experience across the app using XML-based layouts that adhere to Material Design guidelines.
- Implemented a connection between an SQLite database and the UI to enable user authentication and real-time inventory updates to view, add, modify, or delete items by leveraging Java and Android components.

#### AAC Web Dashboard with MongoDB | *Python, Dash, Pandas, MongoDB, PyMongo*

Dec 2024

- Designed and implemented an interactive database dashboard using Dash and Pandas, integrating non-relational database structures to enhance data retrieval and visualization through filter widgets, charts, and a map.
- Developed a Python-based CRUD module utilizing PyMongo to interact with MongoDB NoSQL databases, facilitating efficient data management for the dashboard.
- Employed a Model-View-Controller architecture to enhance application modularity by separating data handling (MongoDB), UI (Dash), and logic (Dash callbacks).

#### JUnit Testing Project | *Java, Maven, JUnit*

Oct 2024

- Developed and tested service classes with CRUD operations for managing Contacts, Tasks, and Appointments, ensuring requirement compliance and reliable code through extensive JUnit testing.
- Applied test-driven development to achieve 100% code coverage by utilizing techniques such as boundary value analysis and equivalence partitioning.
- Validated user input to enhance data integrity and prevent errors through thorough edge case testing.

## EXPERIENCE

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### Stocker/Backroom Associate

Nov 2019 – Present

*Walmart*

*Harleysville, PA*

- Improved team efficiency and problem-solving by leveraging 5+ years of experience to mentor newer associates and lead the team during supervisor absences.
- Contributed to efficient unloading of trucks to sort and organize thousands of products daily by collaborating closely with teammates.
- Demonstrated flexibility in improving backroom organization and ensuring optimal inventory management by proactively taking on diverse tasks.

### Eagle Scout

2015 – 2021

*Scouts BSA*

*Souderton, PA*

- Planned, organized, and led a community service project with 13 volunteers across multiple days to construct and install park benches. Responsible for compliance with safety and acquisition of funds, tools, and material donations.
- Volunteered in many community service projects, including fundraising donations, annual food drives, cleaning the environment, and helping local organizations.

## TECHNICAL SKILLS

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**Languages:** Java, Python, HTML/CSS

**Developer Tools:** Git, MongoDB, JUnit, Maven, Linux