# Yoseph Tezera

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# PERSONAL SUMMARY

Software Engineer with hands-on experience in full-stack development, automation, and data-driven problem solving. Skilled in Python, Java, C, C++, C# and React with a strong background in building scalable applications, machine learning models, and automated testing pipelines. Proven ability to deliver impact through internships and leadership roles, now seeking opportunities to apply technical expertise in professional software engineering environments.

# TECHNICAL SKILLS

**Languages**: Python, Java, C++, C, C#, JavaScript, TypeScript, Rust, PHP, bash, GO, SQL, Ruby, R

**Tools & Frameworks:** React, Node.js, Spring Boot, Docker, Git, TensorFlow, PyTorch, Scikit-Learn, Spring-Boot, Git, GitHub, Unix/Linux, NLP

**Databases:** MySQL, SQLite, PostgreSQL, DBMS fundamentals

**Other:** Data Structures & Algorithms, Data Visualization (Matplotlib, Seaborn), Object-Oriented Programming, System-Level Programming in C and MIPS, Machine Learning, Deep Learning, Web Development, Full-Stack Development

# PROFESSIONAL EXPERIENCE

**Database Administrator I**

Montgomery County Public Schools Division of Information and Technology | 2025 - Present

* Maintained and optimized databases of student and school records using SQL Server Management Studio (SSMS).
* Designed and executed SQL queries, stored procedures, and SSIS packages to support reporting and ETL processes affecting 0.5 million student records.
* Worked with SSRS reporting and Power BI to create and maintain dashboards for data analysis and decision-making.
* Supported database integrity, performance tuning, and troubleshooting to ensure data reliability.

**Software Engineer Intern**

Montgomery County Public Schools Division of Information and Technology | 2025

* Built a Python/Selenium tool for dynamic SSRS report comparison, packaged an executable Senior Developers use for over 9,000 reports.
* Collaborated with senior engineers to implement new features, contributing to the development of structural and thermal simulation tools.
* Designed and executed automated testing pipelines for project code, improving regression test efficiency and code coverage.
* Participated in regular mentorship and development workshops, strengthening skills in object-oriented programming and software design.

**Team Leader**

Chick-fil-a Tech Road, White Oak, MD | Aug 2021 - Present

* Lead a team of 15+ members, optimizing daily operations and enhancing team performance through data-driven decision-making.
* Utilized databases and checklists to track performance metrics and implemented strategies that increased efficiency by 20%.
* Assigned roles strategically based on individual strengths using team leader skills, optimizing task execution.
* Fostered a collaborative environment, leveraging strong leadership and mentoring skills to improve team morale and productivity.

# PROJECTS

**Echo – Secret Sharing App** **–** 2024-2025

React Native (Expo), NestJS, PostgreSQL, Redis, Docker

* Addressed the challenge of building a secure, anonymous sharing platform; designed JWT authentication, onboarding flows, and push notifications with Firebase, ensuring user privacy and engagement.
* Tackled deployment complexity by containerizing backend services with Docker Compose, improving scalability and developer onboarding.
* Delivered smooth UX by implementing Zustand for real-time state management and React Navigation, enabling thousands of concurrent interactions
* Increased development efficiency with CI/CD pipelines and modular TypeScript code, reducing bugs and deployment errors.

**Neural Network and Convolutional Neural Network (CNN) from scratch** – 2023

Python TensorFlow, PyTorch, Scikit-Learn

* Designed a custom neural network from scratch, demonstrating a deep understanding of machine learning fundamentals.
* Developed a CNN using Python, focusing on optimizing architecture for improved performance on image classification tasks.
* Achieved competitive accuracy on benchmark datasets, showcasing the ability to apply theoretical concepts in practical applications.
* Leveraged TensorFlow and NumPy to enhance model performance and efficiency.

**PumpO – Fitness & Social Platform** – 2023-2024

Node.js, ReactJS/React Native, MySQL

* Recognized the need for an integrated fitness + social app; engineered a cross-platform system with workout logging, feeds, and role-based authentication.
* Scaled backend operations by building Node.js APIs connected to a MySQL database, supporting CRUD operations for hundreds of users daily.
* Expanded accessibility by developing responsive React web and React Native mobile frontends, ensuring seamless use across devices.
* Optimized backend queries, reducing response times significantly and improving overall user engagement.

**MCPS SSRS Report Comparator** – 2025

Python, Selenium, Tkinter, Pandas

* Faced inconsistencies across SSRS servers (UAT vs PROD); built a desktop automation tool to compare 9,000+ reports, drastically reducing manual QA.
* Automated parameter discovery, recursive report generation, and SHA-256 hashing/diffing, cutting verification time from days to hours.
* Delivered usability with a Tkinter GUI and robust logging and packaged into an executable used daily by developers.
* Standardized reporting validation, improving accuracy and reproducibility of test results across the district.

**Sudoku – Backtracking Algorithm and Gameplay** – 2022

Unity 2D, C#, .NET, Blender

* Created a complete Sudoku board game with a 9x9 grid, multiple difficulty options, hints, and themes using Unity game engine and C#.
* Implemented a Sudoku table generator and solver using efficient algorithms like backtracking, optimizing both memory and performance.
* Gained knowledge in Algorithms, Data Structures, and Animation through online courses.

**Blockchain Voting System** – 2023

Python (Flask), SQLite, Chart.js, Cryptography

* Addressed trust and transparency in digital voting; created a blockchain-backed election system with immutable, encrypted vote storage.
* Implemented admin tools for election management and voter features (registration, login, ballot casting).
* Enhanced transparency by building real-time results dashboards with Chart.js, enabling live monitoring of elections.
* Ensured security by designing proof-of-work validation and blockchain integrity audits, boosting confidence in election results.

# EDUCATION

**University of Maryland**, College Park, MD

Bachelor of Science in Computer Science, Minor in Applied Mathematics

# ADDITIONAL SKILLS

* **Languages:** Fluent in English and Amharic; basic understanding of Spanish.
* **Leadership & Teamwork:** Proven ability to lead and collaborate effectively in diverse environments.
* **Problem Solving:** Skilled in analyzing complex issues and developing innovative, practical solutions.
* **Adaptability:** Quick learner, adaptable to new technologies, and thrives in fast-paced environments.