Samuel Mulugeta Bireda

Software Engineer

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🎓 EDUCATION

BSc. in Electromechanical (Mechatronics) engineering   Jul 2023 – present | Addis Ababa, Ethiopia
Addis Ababa Science and Technology University ⧉
- Outstanding academic performance with CGPA of **over 3.5** out of **4.0**.
- **Relevant Coursework**: Machine Learning, Robotics, Automation, Object Oriented Programming in Python, Design of Mechatronic System, Industrial Automation

Software Engineering and Competitive Programming Academy   Dec 2023 – present | Addis Ababa, Ethiopia
Africa To Silicon Valley | A2SV - Backed by Google ⧉
- **Advanced Training**: Focused on 10+ data structures, 50+ algorithms, and full-stack development for real-world applications.
- **Achievements**: Solved 900+ coding problems on LeetCode and Codeforces, demonstrating strong problem-solving skills.
- **Project Development**: Built 10+ scalable solutions, strengthening skills in collaborative development.
- **Relevant Coursework**: Data Structures & Algorithms, Full Stack Web Development, Software Engineering Practices

Full Stack Web Development, Machine learning and Python Programming   Jun 2023 – present | remote
Zero to Mastery ⧉
- *Engaged in comprehensive 5+ trainings focused on hands-on projects, covering full stack web development, data structures, algorithms, and Python programming.*
- **Relevant Coursework**: Full Stack Web Development, Data Structures & Algorithms, JavaScript, React, Node.js, Python Programming

💼 PROFESSIONAL EXPERIENCE

Software Engineer   Jun 2024 – Sep 2024 | Addis Ababa, Ethiopia
Eskalate ⧉
- Developed key features for the banking statistics dashboard contaning 10+ pages, enhancing data visualization and decision-making.
- Optimized frontend performance, reducing load times by 20%, improving user experience.
- Integrated real-time APIs, enhancing platform accuracy by 25% and boosting user engagement by 40%.
- Contributed to UI/UX design, delivering a fully responsive, user-friendly interface tested across 20+ device types.

Technologies: Next.js, Tailwind CSS, Axios, API Integration, NextAuth, Redux

📁 PROJECTS

Smart Brain (Individual Project) ⧉   Jun 2023 – Nov 2024
- Created a platform that **detects** and tracks **human faces** using an API, processing up to 2000 images per day.
- **Users can register, sign in, sign out, update** their profiles, **delete** accounts, and **track** the number of entries up to 10000 for face detection.
- Designed a responsive **frontend in React.js** ⧉ and a **RESTful backend in Express.js and Node.js** ⧉ .
- Deployed on **Render** ⧉ and **Vercel** ⧉ , with session management and authenticated routes for secure access.
- **Stored** and managed user data (**username**, **email**, **date**, **passwords**) securely in a **PostgreSQL** database, supporting 5000+ active users.
- **Secured** user credentials by **encrypting passwords** with **bcrypt-nodejs**, protecting data and increasing user confidentiality by 50**%**.

Technologies Used: JavaScript, React.js, Node.js, Express.js, PostgreSQL, bcrypt

A2SV wallet (Team project) ⧉   Aug 2024 – Sep 2024
- Developed a secure platform supporting **200+ users** for loans, investments, and real-time data tracking.
- Deployed on **Netlify** and integrated **Axios** for API communication.
- Implemented secure authentication with **NextAuth** and visualized financial data using **Next.js** and **TypeScript**.
- **Personal Contribution**: Built the Loan and Investment pages, enabling users to manage their financial activities.

Technologies Used: Next.js, NextAuth, TypeScript, Axios, Node.js, Git, GitHub, Netlify

Hydrosolaris Integrated Engineering (Team Project) ⧉   Mar 2023 – Jun 2023
- **Led** a multidisciplinary team of 11 engineers—including electrical, environmental, mechanical, chemical, electromechanical, mining, software, and civil—in developing a solar-powered water extraction and filtration system for off-grid communities.
- **Personal Contribution**: Acted as the main point of contact with our project advisor, organized regular team meetings to coordinate tasks and ensure timely progress, and personally wrote the Arduino code and conducted Proteus simulations for sensor integration and control.

Technologies Used: Arduino, Proteus, Sensors, SketchUp, SolidWorks, Google Sites

🧠 SKILLS

Programming Languages — Python, C, C++, Javascript, plc | **Frameworks / Libraries** — React.js, Next.js, Nextauth, Express, Node |
Technologies / Platforms — Git, Github, Bcrypt, Cookies, knex, Tailwind, Onrender, Versel, Matlab, Arduino | **Data base** — Postgresql

🏅 AWARDS

2 Times winer of Presidential award for outstanding academic performance with a 3.88 GPA in the year 2020/2021 ⧉ **and 2023/2024** ⧉ **becoming one of top 200 students out of 8000+ students in our university.**
Addis Ababa Science and Technology university

One of top 20/100+ teams in the 2024 ICPC Ethiopian Collegiate Programming Contest 28-29 October 2024 ⧉
The International Collegiate Programming foundation ⧉