Mohamed Jirac

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EDUCATION

The Ohio State University **Dec 2026**
Bachelor of Science - BS, Computer Science (GPA: 3.5) *Columbus, Ohio*

- **Coursework:** Foundations, Data Structures & Algorithms, Low-Level Programming and Computer Organizations,, WebApplications, Software Developmentand Design, AI/ ML modeling, , C, C++, Distributed Systems, Software Design & Implementation

TECHNICAL SKILLS

- **Programming Languages:** Python, Java, JavaScript, TypeScript, C, C++, HTML, CSS
- **Frameworks & Tools:** FastAPI, Flask, React, Node.js, Docker, CI/CD, Linux
- **Data & Analytics:** Jupyter, Pandas, Numpy, JSON, Tableau, PowerBI
- **Project & Software Development / Soft Skills:** Software Development , Software Development Life Cycle (SDLC), Data Structures and Algorithms, Systems Analysis, Project Management, Collaborative Problem Solving, Professional Development and Mentorhsip

WORK EXPERIENCE

Mahamed Konsulting **Apr 2025 - Present**
Software Engineer Intern *Seattle, Wa*

- Built and deployed a responsive web platform enabling students to receive resume reviews and access real-time internship listings through integrated third-party APIs.
- Designed intuitive user interfaces with modern web technologies, improving accessibility and engagement among student users.
- Led end-to-end development in an Agile environment, including planning, coding, testing, and iterative deployment based on user feedback.

CodePath **Jan 2025 - Apr 2025**
Tech prep fellow *Remote*

- Completed a rigorous training program focused on data structures, algorithms, and system design, which improved my ability to tackle complex software development challenges
- Solved LeetCode-style problems covering arrays, linked lists, trees, graphs, and dynamic programming, which enhanced my problem-solving skills and coding proficiency
- Collaborated with peers in mock technical interviews to improve problem-solving speed and coding efficiency, which enhanced my collaborative problem-solving skills

Ohio State University **Jan 2024 - Jul 2024**
Undergrad Research *Ohio*

- Designed compilers and software tools optimized for data-intensive applications on GPUs, enhancing processing efficiency and reducing processing time
- Conducted experiments using Python on energy-efficient software solutions for enterprise systems, leading to improved energy savings; also performed PC repairs
- Analyzed trade-offs between power consumption and computational performance in high-performance computing environments, optimizing resource allocation and achieving balanced system efficiency

Somali East African Community Services **Aug 2024 - Present**
STEM Instructor *Ohio*

- Taught weekly STEM and programming classes to Somali high school students, focusing on low-level programming using the C language, which improved their understanding of programming fundamentals
- Designed beginner-friendly lessons that explained how computers process instructions and guided students through writing simple programs like calculators and number converters, leading to increased student engagement and comprehension
- Encouraged teamwork by organizing small group projects and helping students present their work to peers and community members, which enhanced their communication skills and confidence

PROJECTS

BDAA Data/IO Hackathon | *BDAA*

- Conducted data analysis on EV charging infrastructure across California, identifying key trends and disparities in accessibility
- Applied linear regression models to analyze the correlation between city population and the number of EV charging stations.
- Collaborated in a team to gather, clean, and interpret large datasets, drawing insights on charging station distribution and usage patterns, and presented findings on their impact on EV adoption and environmental sustainability.

Market Data Pipeline Simulator

- Developed a real-time data pipeline using Python, FastAPI, and Redis to simulate equity market feeds and support real-time price updates via WebSockets.
- Designed a backend system to ingest and cache synthetic stock data, storing historical ticks in PostgreSQL and benchmarking read/write latency across services.
- Containerized the system with Docker Compose and implemented automated testing and CI workflows to mirror production-level engineering standards.

LEADERSHIP AND PROFESSIONAL DEVELOPMENT

National Society of Black Engineers (NSBE) | *National Member* **Jan 2024 - Present**

Management Leadership for Tomorrow (MLT) | *Tech Prep Fellow* **Jan 2025 - Present**

ColorStack | *National Member* **Aug 2024 - Present**