Abdullah Amin

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EDUCATION

FAST National University of Computer and Emerging Sciences Islamabad, Pakistan
Bachelor of Science in Computer Science; GPA: 3.75 *Aug 2023 – Aug 2027*

EXPERIENCE

Algozen United States, Remote
Software Engineer *Aug 2024 - Present*

- **High-Performance Backtesting System**: Designed and maintained a **high-performance computing** system for financial strategy evaluation using Julia, developing core components to efficiently process large data sets. Improved system accuracy through **rigorous testing and debugging**, ensuring reliability for real-world trading simulations.

- **Performance Optimization**: Optimized backtesting logic, reducing run time by more than 60%, significantly enhancing performance and efficiency.

- **End-to-End Ownership**: Led the design, **development, and deployment** of multiple full-stack features, ensuring seamless integration across back-end, front-end, and **comprehensive smoke tests** to maintain process integrity.

- **Testing & QA**: Designed and executed end-to-end tests using **Cypress** for the majority of front-end applications, improving overall reliability and user experience.

- **CI/CD Automation**: **Automated test execution** by setting up pre-commit and pre-push hooks, ensuring all tests run before code is merged, improving code reliability and reducing regressions.

- **Agile Collaboration**: Operated within an Agile environment, providing **daily standups** and **collaborating cross-functionally** with frontend, backend, and data teams to drive seamless integration and performance improvements.

Algozen United States, Remote
Software Engineering Intern *Jun 2024 – Aug 2024*

- **Strategy Visualization Tool**: Developed an **interactive data visualization tool** to display decision paths in trading strategies, integrating conditional logic analysis to enhance strategy evaluation across market scenarios.

- **Testing & Reliability**: Implemented **comprehensive unit tests** using Jest for critical frontend components, ensuring robust functionality and improving system reliability.

PROJECTS

- **Real-Time Chat Application**: Built a full-stack chat application using **Next.js, Socket.IO, and Supabase**, allowing seamless real-time messaging. Implemented user authentication, live message synchronization, and optimized WebSocket performance for scalability.

- **Plants vs Zombies Clone**: Developed a **game engine and mechanics** for a desktop Plants vs Zombies clone using C++ and SFML. Implemented enemy behavior, collision detection, and optimized rendering for smooth gameplay performance.

- **Blogging Platform**: Created a **full-stack blogging website** with MERN stack, featuring user authentication, text editing, and a dynamic post management system, with support for comments. Implemented a responsive UI for improved user experience.

TECHNICAL SKILLS

- **Languages**: JavaScript/TypeScript, Julia, C, C++, Python
- **Frameworks/Libraries**: React, Next.js, Socket.IO, Tailwind CSS, Cypress, Node.js, Express.js, Bun
- **Technologies**: Supabase, Docker, GitHub, CI/CD, Linux
- **Databases**: PostgreSQL, MongoDB, SQL Server