

MAHFUJULHAAQ KHAN

Senior Software Engineer & Technical Architect

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Professional Summary

Distinguished and innovative Senior Software Engineer with over two decades of experience architecting, developing, and deploying mission-critical enterprise systems, high-performance algorithms, and full-stack web and mobile applications. A proven leader who has driven complex projects from concept to completion for industry giants like Verizon and FedEx. Expert in translating complex business requirements into robust, scalable, and forward-thinking technical solutions that enhance performance and drive business growth.

Core Competencies & Technical Skills

Category	Skills
Languages	Java, J2EE, PHP (OOP), JavaScript (OOP), HTML5, CSS3, XML
Frameworks & Libraries	Spring, JavaFX, Swing, JQuery, AJAX, JSON
Databases	MySQL
DevOps & Tools	Jenkins, Git, SVN, CVS, AccuRev, Eclipse, IBM RAD, Visual Studio, Zend Studio
Web & App Servers	WebSphere, Tomcat, Apache, IIS
Architectural Concepts	Object-Oriented Analysis & Design (OOAD), MVC, REST & SOAP APIs, CI/CD, Test-Driven Development, Refactoring

Key Achievements & Innovations

- High-Performance Algorithm Design:** Architected a novel square matrix multiplication algorithm that demonstrably surpasses the performance of Brute-Force and Strassen's algorithm, a significant achievement in computational mathematics and speed up *AI training and execution*.
- Advanced Computational Solver:** Developed a proprietary polynomial solving algorithm to tackle complex computational challenges within enterprise-level engineering software.
- Custom UI Frameworks:** Innovated and built multiple bespoke GUI frameworks and component libraries (Java Swing/JavaFX) that were adopted as the standard for enterprise applications.

Education

B.Sc. in Computer Engineering, **Summa Cum Laude** (GPA: **3.90/4.00**)
American International University Bangladesh (AIUB)

Professional Experience

Senior Software Engineer | HRC LLC - Santa Clarita, CA | *March 2020 - Present, 2012 – 2013, 2010 – 2011*

- Architected and spearheaded the development of LDV, a sophisticated desktop-based engineering analysis and project management software. Utilized Java and Swing to build a custom, high-performance GUI framework from the ground up, featuring advanced 2D/3D graphics modules and reusable custom components that accelerated future development cycles.
- Engineered 'GOP Plus,' a full-stack hotel profitability management platform, using PHP, MySQL, and modern JavaScript. The application empowers hotel management to optimize budget adherence and perform strategic forecasting by analyzing performance against dynamic market fluctuations.
- Leading development for 'HRCHR,' a web-based SaaS Human Resource Management (HRM) system built on the CodeIgniter framework, PHP, and a MySQL database. Currently focused on integrating AI-powered automation to enhance system capabilities and user efficiency.
- Drove development efficiency and code quality by designing complex, normalized database schemas, creating detailed UML diagrams for system architecture, and meticulously documenting workflow processes for both new and legacy systems.

Founder & Lead Developer | Whistle.Taxi - Dallas, TX | *March 2015 - Present*

- Conceived, architected, and single-handedly launched 'Whistle.Taxi,' a comprehensive ride-sharing ecosystem. This involved the full-stack development of four distinct, interconnected applications: a native-like client app, a driver app, a web-based control center for dispatch, and an administrative dashboard.
- Engineered a highly scalable and resilient backend architecture using PHP, MySQL, and WebWorkers. This system was designed to handle thousands of concurrent users, supporting real-time geolocation tracking, an efficient automated dispatching algorithm, and third-party API integrations like Google Map API, etc.

Software Engineer | Verizon Wireless - Warren, NJ | *August 2013 - February 2015*

- Played a key role in the 'My Verizon Mobile App' application team, significantly reducing call center operational costs by engineering critical self-service features. Empowered millions of users to independently manage billing, change service plans, monitor data usage, and update account details, directly improving customer satisfaction.
- Spearheaded the modernization and overhaul of the customer-facing payment and autopay systems. Using Java/J2EE and the Spring framework, this initiative enhanced security protocols, improved transaction reliability, and streamlined the user experience for a flagship, high-traffic application.

Software Engineer | FedEx - Dallas, TX | *June 2011 - May 2012*

- Delivered key enhancements to the FPOS-R & POS systems by seamlessly integrating kiosk and agent-side applications, which streamlined in-store shipping operations for both customers and employees and reduced transaction times.
- Tackled complex UI/UX challenges by developing robust interfaces for both touch-screen kiosks and standard desktop screens. Managed multi-threaded environments to ensure application responsiveness and implemented comprehensive support for international languages to improve global usability and accessibility.
- Java, J2EE, Swing