

# WILLIAMS BOTCHWAY

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## FULL STACK DOT NET DEVELOPER

Experienced Backend .NET Developer with over 5 years of experience in implementing, designing, testing, and maintaining software systems using the .NET technology stack. Skilled in effectively managing independent projects while also collaborating with cross-functional teams to drive projects from concept to development and delivery. Proficient in .NET, C#, NestJS, Angular, REST, MS SQL and Azure with a strong foundation in Domain-Driven Design, Event-Driven Architecture, and Microservices Architecture.

- SOLID • Clean Architecture • Vertical Slice Architecture • Security • Object Oriented Programming (OOP)
- Database Management • CI/CD • Code Version Control • Concurrency and Multi-Threading • Performance Optimization

**Languages:** C#, JavaScript, TypeScript

**Web:** HTML5, CSS3, Bootstrap, jQuery, MaterialUI, Tailwind

**Web Services:** REST, SOAP, GRPC, SIGNALR FOR WEB SOCKETS

**Web/App Servers:** Internet Information Services (IIS)

**Frameworks:** Dotnet/.NET Core, Angular, Razor Pages, ASP.net

**Databases:** MSSQL, MYSQL, PostgreSQL, MongoDB

**Design Patterns:** MVVM, MVC, Singleton, Decorators, Commands, Publisher Subscriber, Adapter

**SDLC:** Agile

**Tools:** MS Build, Visual Studio, Dotnet/.NET CLI, MS SQL, RabbitMQ, Kafka, Docker, Terraform, Git, GitHub Action, Azure Functions, Azure AppService

**Platforms:** Window, Linux, MacOS

## PROFESSIONAL EXPERIENCE

**CAREER NOTE:** Completed on-campus studies and currently taking distance education courses to complete a **Master's Degree in Computer Science** (Available for full-time, W-2 employment).

### SPAGAD TECHNOLOGIES (AXON INFORMATION SYSTEM), Accra, Ghana • 10/2023 – 08/2024

Specializes in world-class applications for government and enterprises.

#### Senior Software Engineer

Develop and maintained Ghana Integrated Tax Management and Information System (GITMIS) for tax revenue collection.

- Designed and led the second-phase rollout of Ghana's Integrated Tax Management System, modernizing tax processes through full digitization and contributing to IMF's \$1B support package approval.
- Developed secure integration layers between GITMIS and third-party platforms (banks, telcos, fintech's) using RESTful APIs with .NET, boosting real-time tax reconciliation accuracy, and reducing audit turnaround times by 15%.
- Implemented and optimized the Electronic Transfer Levy (E-Levy) in GITMIS, enabling real-time revenue tracking across mobile money, banks, and fintech platforms.
- Designed and deployed a digital framework for Gaming and Real Estate tax administration, integrating with GITMIS to boost compliance and diversify government revenue.
- Enhanced user experience on the GITMIS frontend using Angular, improving usability and engagement.

**Technologies Used:** C#, ASP.Net Core, MS SQL, Entity Framework, ADO.NET, XUnit, Azure.

### FIRST ATLANTIC BANK, Accra, Ghana • 06/2021 – 09/2023

A licensed commercial universal bank in Ghana.

#### Senior Software Engineer

Developed and maintained multiple projects including Corporate Pay and Corporate Mobile Banking.

- Designed and built the Corporate Pay backend with .NET and MS SQL, cutting transaction time by 40% and achieving faster payments.
- Built a scalable microservices architecture for the payment system, leveraging Azure and .NET Core, which resulted in improved system reliability and a 20% increase in service uptime during peak transaction periods.
- Integrated third-party payment gateways and banking APIs via RESTful services, allowing for seamless mobile payments and increasing transaction volume by 40% within the first quarter post-launch.
- Optimized database queries in MS SQL by refactoring stored procedures and indexing critical tables, reducing the system's database load and boosting query response times by 50%.

- Implemented a secure OAuth2 and JWT-based authentication system, reducing unauthorized access by 25% and ensuring compliance.
- Engineered and deployed a modular-based architecture to handle banking transactions at scale, resulting in a 30% improvement in system response time during high-volume user traffic periods.
- Implemented real-time push notifications using Azure Notification Hub, alerting users of critical banking activities and improving user engagement by 20%.

**Technologies Used:** C#, ASP.Net Core, Entity Framework, Dapper, ADO.NET, XUnit.

#### **CODERICH SOFTWARES, Accra, Ghana • 06/2019 – 04/2021**

A licensed Payment Service Provider Enhanced (EPSP) by the Bank of Ghana to collect and process payment services.

##### **Software Developer**

Developed and maintained multiple projects including Remittances (Web-Based System) and Universal Banking Solutions (Web-Based Banking System).

- Refactored and developed the back-end services for an inward remittance application, using .NET Core and MS SQL, enabling seamless receipt of international remittances and reducing processing time by 25%.
- Engineered a secure API integration with external fraud detection systems, utilizing C# and RESTful services, ensuring real-time fraud checks for each transaction and reducing fraudulent transactions by 18%.
- Optimized the transaction processing logic and database indexing, improving throughput by 40%, and ensuring minimal downtime even during peak remittance periods.
- Developed the back-end architecture for a multi-tenant loan application platform, enabling corporate clients to manage loan disbursements to employees, using .NET Core and MS SQL, increasing deployment efficiency by 40%.
- Engineered the salary payment automation feature within the loan application, reducing manual processing by 50% and improving disbursement speed for over 200,000 employees across multiple corporate clients.
- Designed and implemented a scalable API service for integrating corporate payroll systems with the loan platform, using RESTful APIs and C#, streamlining salary disbursements and increasing processing volume by 30%.
- Integrated automated compliance checks and reporting features to ensure that salary disbursements adhere to regional financial regulations, resulting in a 15% reduction in compliance-related issues for corporate clients.

**Technologies Used:** .NET Core, Entity Framework Core, Dapper, LINQ, MassTransit, Angular, RabbitMQ, Kafka, Docker, Terraform, Git, GitHub Action, Azure Functions, Azure AppService, Azure SQL Database.

### **ACADEMIC PROJECTS**

#### **Maharishi International University (2024)**

**Help Desk System:** A Help Desk Support Ticket System which enables customers to report issues and track resolutions through an organized ticketing process. It incorporates priority-based SLAs, automated escalation procedures, and a clear communication log to ensure timely responses from agents. The system also supports ticket closure, reassignments, and detailed reporting, ensuring efficient issue resolution and accountability. Utilized Java, ActiveMQ.

### **PERSONAL PROJECTS**

**Flight Booking System (2025):** The Flight Booking System allows customers to book flights by providing travel details, managing booking statuses, and facilitating communication with agents for special requests or issues. The system incorporates SLAs for booking confirmations, modifications, and cancellations, with priorities based on urgency, customer status, and travel class. It also includes an escalation process, automatic reassignments, and a booking reopening feature to ensure efficient management of customer requests and timely resolutions. Utilized .NET Core C#, RabbitMQ.

### **EDUCATION**

#### **Master of Science in Computer Science**

*(In progress via distance education; expected completion 04/2027)*

Maharishi International University, Fairfield, Iowa

**Key Courses:** Algorithms, Enterprise Architecture, Web Application Programming, Software Engineering

#### **MSc in Financial Engineering**

Worldquant University, New Orleans, United States (05/2021)

**Key Courses:** Machine Learning in Finance

#### **BSc Computer Science with Mathematics in Computer Science**

University of Ghana, Accra, Ghana (05/2016)