

# AMEEN DEMIRY (MOHAMED IBRAHIM)

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As a senior engineer with extensive experience in developing distributed and cloud-based solutions, I have a proven track record of leading teams towards success, using my expertise to set the vision, coach and motivate team members. I deliver high-quality solutions on time while balancing the 4Ps - Priorities, People, Product, and Process. With a strategic mindset, I am continuously focused on identifying, isolating, and prioritizing, fixing complex issues.

## AREAS OF EXPERTISE AND SKILLS

|                            |                             |                                   |
|----------------------------|-----------------------------|-----------------------------------|
| Software Development       | Process Improvement         | Hands on Python, C++, Node, React |
| SDLC + CI/CD               | Platform Development        | ML / Gen AI, LLM, RAG, Prompt eng |
| Management, People, Budget | Cloud Platforms: AWS, Azure | ML / Failure Auto Analysis        |
| Scrum, Agile Methodology   | Data and Visual Analytics   | Test Automation Framework         |

## EXPERIENCES

### Senior Software Engineering Manager AI/ML,

[ 05/2023 - 02/2024 ]

*Moderna, Generative AI, Data and AI, Digital*

- Led a team of five, fostering trust and cohesion through clear rules and focused meetings.
- Built and introduced mChat, an LLM chatbot, recognized in an investor call. Used by majority of Moderna employees.
- Spearheaded the development of a versatile Gen AI platform for cross-functional applications. Implemented a secure API interface using ECS, S3, ChromaDB, and Weaviate.
- Added multi-model and multi-modality support, integrating Open AI functions for seamless web browsing, RAG, and image creation capability support.
- Guided continuous deployment and refinement of Scrum practices, ensuring adaptability through regular reevaluation. And testing with Cypress test framework.
- Contributed to an AI-centric culture, fostering proficiency through an AI internal social groups, and brown-bags.
- Developed and deployed a flexible Gen AI platform in three variants, facilitating use across diverse applications.
- Pioneered the introduction of BM25 within the RAG Evaluation framework, significantly improving keyword search accuracy.

### Software Engineering Manager,

[ 03/2015 - 03/2023 ]

*Tableau, [Visualization Pipeline, Viz-Interactivity, Product Internationalization]*

Managed Two Teams: Led the Visualization Pipeline and Browser Everywhere teams.

- Doubled Visualization Pipeline Team: Expanded team to 3 Principals, 1 Lead, and 3 Seniors.
- Cloud Migration for Product Internationalization: Managed 3 Senior SWE, 1 Lead, 1 Project Manager, and 8 contractors.
- Developed and deployed a flexible Gen AI platform in three variants, facilitating use across diverse applications.
- Pioneered the int
- Built Multi-Year Team Roadmap: Collaborated with product and leadership to align with business goals. Shipped Image role on time, without scope reduction. Developed and shipped Visualization API SP2, initiated Accessibility SP1.
- Mentored and Coached Engineers: Guided engineers and aspiring leaders at various levels, from new hires to principal.
- Transformed Team Organization: Fostered self-organization with assigned leadership for operations, quality, and feature development.
- Implemented Lean Startup Principles: Boosted velocity and morale through build-measure-learn cycles.
- Prioritized Customer Success: Reduced bug ratio from 1:15 to 1:3, saving \$100K by deprecating rarely used tests.
- Used Data Analytics and Metrics: Evaluated priorities, quality, cost, and ROI with PMs, improving quality, performance, and feature development.
- Scrum Leader for Browser Everywhere Team: Managed scope and timeline, shipped SP1, and implemented hybrid UI for side pane across desktop and web (C++, Script Sharp, and vanilla JS, Selenium).
- Built CI/CD Pipeline: Deployed C++, Emscripten, JS across Windows, OSX, and Linux using TeamCity, CMake, and Python.
- Debugged Performance Issues: Improved reliability across JS/C++ boundaries.
- Monitored Scalability of Tableau Data Engine (Hyper): Designed scalability scenarios, used TabJolt for analysis, developed a micro-service to ingest logs into a data warehouse.

- Implemented Command Pipeline Improvements: Enhanced performance and scalability of existing command pipeline.
- Refactored Partition Model Producer: Enabled more features to be shipped later.
- Led Key Projects: Designed, developed, and supported Runtime Core and associated tools, including Visual Transformation language and Virtual Machine for desktop and web client.
- Developed and Tested Runtime Framework: Implemented framework across C++, JS, and ReactJS using Emscripten, C++, JS, and WASM.
- Memory Leak Detection Framework: Developed and implemented framework used by multiple teams at Tableau

## Software Development Engineer II,

[ 03/2007 - 03/2015 ]

*Microsoft, (Office for Apple Platform, DevDiv, MSVC Concurrency Runtime)*

- Designed and delivered features for Windows and Office on Apple OSX and iOS, in a live, complex, and highly-scaled production environment).
- Led right-to-left (RTL) support in Office APEX, reimplementing Windows and Office code for Apple OSX and iOS.
- Designed and implemented Extensible Incident Detection Utility for SQL Azure.
- Wrote tests and product code used in Azure C++ SDK, ARM testing for Concurrency runtime, and Casablanca.
- Created and ran testing procedures to evaluate and report software performance, reliability, integration, and usability. Built software testing programs to automate testing processes. Recommended product improvements.
- Wrote and tested HTTP API, including auto analysis service for C++ Crashes as part of Restful HTTP C++ library used in Azure C++ SDK and ARM testing for Concurrency runtime, Visual Studio 2010, and C++ REST API.
- Stress tested next generation of parallel technology; designed and implemented Incident Detection Utility.
- **Microsoft Gold Star Award**, 2008

## Software Engineering Manager,

[ 01/2001 - 03/2007 ]

*Harf Information Technology (Egypt)*

- Led team of 3 software engineers. Technical scope: Microsoft PocketPC (C++ embedded devices) and Middle tier of web portals, business logic, and search engine integration.
- Developed a full-stack web portal using MVC architecture for a manuscript archive using technologies like VC++6, WSC, ASB, VB6, VBA, Win32 API, SQL Server 7/2000, HTML (DHTML, CSS), XML (XSLT, DTD), and COM
- Innovated a security solution for downloadable applications by creating a Win32 PE EXE encryptor/protector, enhancing application security against unauthorized access and use

## Additional Experience

- **C++ Programmer, ITSS – IBM Egypt** (Egypt): Technical Scope: Firefox Mozilla M16, adding bidi support.
- **IT Manager, Aluminum Atlas** (Egypt): Managed a team of 4 in two separate cities to install and support IT infrastructure. *Technical Scope: Office Automation with VBA.*
- **Instructor, Cairo University and additional institutions:** Taught C++, Windows, Microsoft Office, 3DS MAX.
- **Maintainer**, github, gitlab, bitbucket, docker, CMake, Jenkins

## EDUCATION

**Bachelor of Science (B.Sc.), Systems and Bio-Medical Engineering - CAIRO UNIVERSITY, Cairo, Egypt**

**AWS**; Certified Cloud Practitioner, 9/2022

**SC-900**; Microsoft, Security, Compliance, and Identity Fundamentals, 8/2022

**IBM AI Product Manager**

**Alteryx**, Foundations

**AZ-900**; Azure Fundamentals, 7/2022

**Six Sigma Green Belt**

**Alteryx**, Machine Learning Foundation

**Alteryx**, Machine Learning Foundation

**AI-900**; Azure AI Fundamental, 1/2023

**DP-900**; Azure Data Fundamentals, 1/2023

**IBM IT Scrum Master**

**PMP Certified (289781), 9/2005 (Exp.)**