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	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

CERTIFICATIONS

AWS; Certified Cloud Practitioner, 9/2022	**AZ-900**; Azure Fundamentals, 7/2022	**AI-900**; Azure AI Fundamental, 1/2023
SC-900; Microsoft, Security, Compliance, and Identity Fundamentals, 8/2022		**DP-900**; Azure Data Fundamentals, 1/2023
Alteryx, Foundations	**Alteryx**, Machine Learning Foundation	**PMP Certified (289781), 9/2005 (Exp.)**

EXPERIENCES

Senior Software Engineering Manager AI/ML,   [06/2023 – 2/2024]

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,   [09/2021 - 3/2023]

Tableau, Visualization Pipeline, Viz-Interactivity

- Managing two distinct teams.
    - Doubled Visualization Pipeline team (3 Principles, 1 Lead, and 3 Seniors).
    - Cloud migration for Product Internationalization (3 Senior SWE, 1 lead, 1 Project manager, and 8 contractors).
- Built multi-year team roadmap, collaborating with product and leadership to align with business. Shipped Image role on time and without reduction in scope, coaching and reviewing design and code, priorities. Developed and shipped Visualization API SP2, Initiated Accessibility SP1.
- Annual review, and cash planning. Created template adopted across the organization.
- Mentoring and coaching ICs in and outside of the team at many levels principal level, scrum leaders, as well as PIP.
- Transformed the team to be self-organized with assigned leadership for operations, quality, and feature development.
- Implemented lean startup principles (build-measure-learn) to boost velocity and morale.
- Prioritizing customer bug fixes, reducing the bug ration in my team from 1:15 to only 1:3.
- Using Metrics to deprecate rarely used tests with low fixed bug yield to save $100K
- Using data analytics and metrics to evaluate priorities, quality, cost, and ROI with the PMs and take action on quality, performance, and feature development.
- Fixing 10s of bugs, including complex C++ crashes, and races. As well as Performance bugs in C++ and ReactJS / JS.

Lead Member Technical Staff,   [03/2015 - 09/2021]

Tableau, (Runtime, Hyper Data Engine)

- Managed scope and timeline of projects for Browser Everywhere team as Scrum Leader.
- Shipped SP1 of Browser Everywhere. Implemented new hybrid unified UI for side pane across desktop (C++) and web (Script Sharp, and vanilla JS, Selenium).
- Built CI/CD pipeline for VPT and Qt teams, deploying C++, Emscripten, JS across Windows, OSX, and Linux, using TeamCity, CMake, and Python.
- Debugged JS performance and reliability issues in hybrid development across JS/C++ boundaries.
- Monitored, analyzed, and reported scalability of Tableau data engine (Hyper) using TabJolt, designing scalability scenarios, and finding and resolving issues. Developed a micro-service to ingest logs into a data warehouse.
- Implemented new command pipeline and improved performance of existing command pipeline.
- Refactored Partition Model Producer in Visual Pipeline, enabling more features to be shipped later.
- Led key projects in design, development, and post-release support of Runtime Core and associated tools, including a Visual Transformation language and Virtual Machine for desktop and web client.
- Implemented and tested Runtime framework across C++, JS, and ReactJS using Emscripten, C++, JS, and WASM.
- Developed and implemented the Memory Leak Detection Framework used by multiple teams at Tableau

Software Development Engineer II,   [03/2007 - 03/2015]

Microsoft, (Office for Apple Platform)

- 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.

DevDiv, MSVC Concurrency Runtime

- 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 (DTHML, 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

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EDUCATION

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