Michael J. Lewis, MBA, MS

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CAREER PROFILE

I made the transition into software engineering after 11 years of experience in managing finance functions for hyper-growth SaaS companies. With the addition of my recent training from the Master of Computer Science program at Boston University, I can contribute as a well-rounded and business-minded engineer. This unique background provides me with a distinct advantage in building systems that drive business value because I can operate across the business stack, from low-level technical implementation details to executive board rooms

TECHNICAL SKILLS

- **Programming:** C++; Java; Python; Shell
- **Databases:** MySQL, Postgres, MongoDB
- **Development:** System Decomposition; Structured Analysis and Architecture; Template Metaprogramming; Object-Oriented Design Patterns; Git
- **Frameworks:** C++ Boost; STL; Spring

EXPERIENCE

TOP PROJECTS 2019 - Present

Managed the entire SDLC process to build high performant applications

- **C++:** Engineered a computational finance application in C++ using Black-Scholes to price options and calculate option sensitivities. Implemented with Template Metaprogramming to enhance system efficiency. Achieved 1,000,000 simulations in ~27s
- **Java:** Emulated the Java Collection framework, including the specification, design, and implementation and demonstrated their use in modern software engineering
- **Java:** Built a reservation system for a rental car company. The system uses multiple object-oriented design patterns including the singleton, abstract factory, composite, iterator, observer, and strategy patterns. Data persistence is handled with MySQL
- **Python:** Developed a financial application that analyzed near real-time market data and used the Twilio API to automatically send trade signals based on technical analysis

QUANTNET New York, NY

Teaching Assistant 2019 - Present

- **C++ for Financial Engineering:** Explained and responded to C++ concepts and questions while helping students with their programming projects. Sections included template metaprogramming, robustness and efficiency, STL and Boost, memory management, errors and exceptions

BOSTON UNIVESITY Boston, MA

Graduate Teaching Assistant 2019 - Present

- **Operating Systems:** Explained and responded to OS concepts and questions while helping students with their programming projects. Sections included processes, threads, scheduling, memory management, virtual memory, synchronization, deadlocks, and inter-process communication

EDUCATION

BOSTON UNIVERSITY Boston, MA

Master of Science, Computer Science; GPA: 3.9/4.0 6/21

- Graduate coursework – Advanced Programming; Algorithms; Artificial Intelligence; Computer Language Theory; Computer Networks; Data Structures; Database Management; Discrete Mathematics; Machine Learning; Operating Systems; Server-Side Web Development; Software Design and Patterns; Software Engineering

BARUCH COLLEGE New York, NY

Graduate Certificate of Distinction, Computer Science 9/20

- Graduate coursework – C++ Programming for Financial Engineering

UNIVERSITY OF CALIFORNIA, DAVIS Davis, CA

MBA, Finance and Technology Management; GPA: 3.9/4.0 6/15

- Graduate coursework – Statistics; Derivatives Pricing; Mergers and Acquisitions; Financial Informatics