RAMANA RAO AMBORE, FRM

Principal Fintech Engineer & Quant Developer

Ramana.Ambore@gmail.com | (515) 525-4636 | Merrimack, NH | https://www.linkedin.com/in/ambore | https://github.com/RamanaAmbore | https://medium.com/@rrambo

PROFESSIONAL SUMMARY

Principal FinTech engineer and quant developer with 30+ years of experience modernizing mission-critical financial systems, building algorithmic trading platforms, and delivering cloud-native data solutions at enterprise scale. FRM-certified (GARP, 2022) with deep, working knowledge of options pricing (Black-Scholes), Greeks (Δ, Γ, Θ, ν, ρ), implied volatility surfaces, and derivatives risk — applied in a live algorithmic trading platform. CFA Levels 1 & 2 cleared; pursuing Level 3. Fluent across Python, Java, Spark, AWS, and Snowflake; actively applying Gen AI tooling (LLMs, Claude Code) to accelerate modernization and code-analysis workflows. Recipient of the NTT Innovation Award, ranked among the top 40 innovators globally. Built an in-house legacy modernization toolkit — Rambo (mainframe dependency analytics), Cobra (COBOL AST parser and data-lineage engine), and automated VSAM-to-DB2 re-engineering — delivering the full decommissioning lifecycle without third-party tooling. U.S. work-authorized — no visa sponsorship required.

KEY ACHIEVEMENTS

- Architecting a distributed fee-calculation engine at Fidelity Investments on AWS (Lambda, Step Functions) and Snowflake — replacing overnight batch billing with an event-driven, horizontally-scalable platform processing billions of transactions annually across advisory, custody, and retirement products.
- Built 'Rambo,' a Python/Streamlit dependency-analytics platform that provided critical insights into 3,000+ mainframe batch jobs, enabling their systematic decommissioning and cutting legacy-maintenance overhead significantly.
- Received the NTT Delivery Excellence Award for Innovation — designed a Python-based product suite that automated COBOL-VSAM to COBOL-DB2 re-engineering, ranked top 40 globally within NTT DATA.
- Built the COBOL parsing engine for Cobra — performs lexical/syntax analysis, constructs an AST, tracks full data lineage, and maps field origin and transformation across millions of lines of legacy COBOL code.
- Building a live algorithmic trading platform for equity options integrating Black-Scholes pricing, implied volatility bands, and Greeks-driven signals (Δ, Γ, Θ) with automated execution via the KiteConnect API for covered-call and volatility-entry strategies.
- Built and operate an in-house legacy modernization toolkit — Rambo (mainframe dependency-graph analytics), Cobra (COBOL AST parser and data-lineage engine), and automated VSAM-to-DB2 re-engineering — covering the full lifecycle from mainframe artifact discovery to systematic decommissioning; Gen AI (LLMs, Claude Code) now accelerates COBOL analysis and documentation at scale.

CORE TECHNICAL SKILLS

python, snowflake, claude code, streamlit, dash/plotly, java, spark, SpringBoot, COBOL, CICS, DB2/SQL, JCL, VSAM, AWS, terraform, jenkins, git

PROFESSIONAL EXPERIENCE

Fidelity Talent Source (delivering solutions for Fidelity Investments)

Fidelity Talent Source, engaged with Fidelity Investments USA, Principal System Analyst, Oct 2025 - Till Date

Billing Platform Modernization - Fee Calculation Engine — Principal System Analyst (Oct 2025 – Till Date)

Modernizing Fidelity's firm-wide billing platform — the mission-critical engine that computes and reconciles advisory, custody, brokerage, and retirement fees across millions of client accounts and billions of transactions annually. Re-architecting legacy overnight batch billing into a cloud-native, event-driven distributed platform on AWS and Snowflake with strict SEC/FINRA regulatory compliance, full audit traceability, and near-real-time fee visibility. Replacing monolithic batch jobs with horizontally-scalable Lambda and Step Function workflows that complete a fraction of legacy runtime.

Tech: Python, AWS Lambda, Step Functions, Kafka, Snowflake, Airflow, dbt, Terraform, SQL, Git, Jenkins

NTT DATA / Fidelity (seventeen years delivering for Fidelity Investments)

NTT DATA Global Delivery Services Ltd., Application Development Director, engaged with Fidelity Investments, Apr 2008 - Sep 2025

1. Cloud based Transmission application — Application Development Director (Apr 2008 – Sep 2025)

Led cloud modernization of a high-volume, business-critical legacy transmission platform at Fidelity Investments — migrating from mainframe batch to AWS using Java, Spring Boot, and Spark. Designed and built a reusable core framework that cut development and deployment turnaround by 50%, processed high-volume financial transmission files with complex data transformation and validation, and ensured byte-level parity with legacy mainframe output.

Tech: Java, Spring Boot, Spark, AWS EMR, S3, Python, Pandas, Terraform, Jenkins, Git

2. Rambo - Rapid Analysis of Mainframe Batch Objects — Application Development Director (Apr 2008 – Sep 2025)

Built Rambo — a Python/Streamlit dependency-analytics platform used by Fidelity engineering teams to map, visualize, and rationalize thousands of mainframe batch artifacts. Modeled artifact dependencies as NetworkX graphs, enabling teams to trace data lineage, identify dead code, and systematically decommission ~3,000 redundant batch jobs. Delivered significant cost savings in legacy maintenance and laid the groundwork for the subsequent Cobra COBOL analysis tool.

Tech: Python, Pandas, Postgres, NetworkX, PyVis, Streamlit, Git, Jenkins

3. Cobra - COBOL Research & Analysis — Application Development Director (Apr 2008 – Sep 2025)

Led development of Cobra — a COBOL research and analysis ecosystem for deep legacy modernization. Built a high-performance parsing engine that performs lexical and syntax analysis, constructs an Abstract Syntax Tree (AST), and tracks full data lineage across millions of lines of COBOL code — identifying field origin, transformation paths, and inter-program dependencies. Directly enabled the VSAM-to-DB2 migration program that won the NTT Delivery Excellence Award for Innovation.

Tech: Python, Pandas, Regex, NetworkX, Postgres, PyVis, Streamlit, Git, Jenkins

4. Legacy Automation — Application Development Director (Apr 2008 – Sep 2025)

Replaced static mainframe batch scheduling with event-driven, CICS-driven dynamic job submission — COBOL programs that monitor internal CICS transactions and dynamically generate and submit JCL in near-real time. Eliminated manual schedule maintenance, reduced missed-job incidents, and enabled sub-minute response to upstream data events across Fidelity's high-volume financial processing environment.

Tech: MVS, COBOL, CICS, JCL, DB2, VSAM, Assembler

iNautix Technologies

iNautix Technologies India Pvt, Project Leader, May 2002 - Apr 2003

Meta Data Services Group — Project Leader (May 2002 – Apr 2003)

Led the Meta Data Services Group at iNautix, providing offshore support to Pershing for capturing, storing, and presenting mainframe metadata.

Tech: MVS, REXX, JCL, COBOL, DB2, CA-7, Endevor, Platinum/DataShopper, Java, Java Script, DB2 Connect

Modis Consulting

Modis Consulting, Software Consultant, Nov 1997 Apr 2002

DBS Financials — Software Consultant (Apr 2002 – Nov 1997)

Implemented the DBS E-series financial system and developed the Internal Funds system for Dade County Public Schools. The project is to install, customize and implement DBS E-series packages for Dade County Public Schools. The project also involved developing Internal Funds systems and integrating it with DBS E-Series packages

Tech: MVS, COBOL, EasyTrieve, JCL, REXX, CICS, VSAM, FileAid, Xpediter, DCI

Mastech Inc

Matech Systems, Software Consultant, Nov 1996 - Nov 1997

Ryder On-line Analytical Decision (ROAD) System — Senior Software Consultant (Nov 1996 – Oct 1997)

Developed and implemented the Ryder On-line Analytical Decision (ROAD) System to support repair shop operations. Ryder On-line Analytical Decision (ROAD) Support System helps in calculating the average number repair hours at the repair shops. The system generates productivity reports and helps in estimating the manpower requirements at various Ryder repair shops

Tech: MVS, COBOL, JCL, REXX, CICS, DB2, VSAM, DCI, IE, Script, Xpediter, SPUFI, FileAid, QMF

Dun & Bradstreet Satyam Software

Dun & Bradstreet Satyam Software, Software Associate, Oct 1994 - Oct 1996

DBS E-series Year 2000 Conversion Projects — Software Engineer (Oct 1994 – Oct 1996)

Dun & Bradstreet E-series Government is a suit of mainframe financial packages used by Fortune 500 companies with DB2 as the database management system. The project is to implement the new release of the package that is year 2000 compliant. Worked as a team member to build Design Document for Year 2000 changes and product enhancements for the new release of Purchasing System (PS) Module of DBS E-series products.

Tech: MVS, COBOL, JCL, REXX, CICS, VSAM, DCI, IE, Script, Xpediter, FileAid

EDUCATION

Master's — Master's in Computer Science, J.K. Institute of Applied Physics & Technology, 1993

PGCBM — PGCBM, XLRI - School of Business, 2005

Bachelor's — Bachelor's in Computer Science, Nagarjuna University, 1991

CERTIFICATIONS

FRM — GARP Certified Financial Risk Manager (FRM), 2022, ID# 502640

CFA — CFA Levels 1 & 2 cleared, CFA Institute, 2018 & 2020, ID# 8243442

DB2 DBA — IBM Certified DB2 DBA, 2003

Six Sigma — Six Sigma Green Belt certification, QAI, 2005

PMP — Project Management Professional (PMP), PMI, 2005

Java — Sun Certified Java Programmer, 1999