

Matthew Chirichella

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SUMMARY

Results-driven Full-Stack Developer and Software Engineer with 5+ years of experience designing secure, distributed systems and Big Data solutions on AWS. Proficient in creating low-latency, high-throughput applications and architecting microservices in Java and Python utilizing frameworks like Spring Boot and FastAPI. Experienced in AI/ML pipelines, notably fine-tuning large language models (Claude Sonnet, Gemini), and streamlining ML deployments with MLOps tools.

EDUCATION

B.S. in Computer Science

St. Joseph's University • 3.7

Patchogue

- Member of Upsilon Pi Epsilon (Computer Science Honor Society)

EXPERIENCE

BEEP BOOP INC.

SOFTWARE ENGINEER / CEO

New York, NY

May 2020 - Present

- Architected AWS-based microservices (EC2, ELB, S3, DynamoDB), achieving sub-50ms latency and 99.99% uptime via multi-AZ deployments.
- Developed Big Data pipelines with Pandas and PySpark, trained said data on Hugging Face Transformers on custom-built Arch Linux servers from home-lab.
- Trained AI models on several platforms (Stellar.ai, Outlier, Alignerr), refining LLMs including Claude and Gemini, creating custom software for the training UI's.
- Implemented MLOps infrastructure (Kubeflow, SageMaker), reducing ML model retraining efforts by approximately 40% across relevant projects.

ROTOBOT AI

FULL STACK DEVELOPER

Boston, Massachusetts

July 2024 - September 2024

- Built high-throughput FastAPI and Celery applications handling 15,000+ tasks/day with sub-100ms response times.
- Developed real-time ETL pipelines using Azure Cosmos DB and PySpark, improving data processing performance.
- Deployed ML inference services (TensorFlow Serving) in Docker containers on AWS GovCloud/Kubernetes.
- Led implementation of robust CI/CD pipelines with GitHub Actions and Terraform, reducing deployment failures.

MARCUM TECHNOLOGY

DATA ANALYST

New York, NY

August 2022 - April 2024

- Automated data ingestion processes (UiPath, VBA, Python, TeamMate Analytics), reducing manual ledger review times from over 6 hours to roughly 15 minutes (95% efficiency gain).
- Integrated custom GPT's with existing proprietary systems, improving NLP efficacy and reliability.
- Deployed predictive ML models trained using Scikit-learn on AWS EC2 servers (linear regression, clustering), increasing forecasting accuracy roughly 22%.
- Created real-time dashboards (Power BI, Tableau) utilizing streaming data from Amazon Redshift or Azure Synapse, significantly reducing reporting lag.

ARMA CONTAINER CORP

CHIEF IT TECHNICIAN & SOFTWARE ENGINEER

Deer Park, NY

January 2021 - August 2022

- Implemented Azure IaaS in four warehouses, achieving 99.999% durability and sub-30ms latency, resulting in annual server cost savings exceeding \$56,000.
- Modernized legacy systems by containerizing and refactoring applications with Docker and Kubernetes, increasing system uptime to 99.9%.
- Enhanced security practices (AES encryption, IAM policies), reducing network incidents/downtimes by 25%.
- Established disaster recovery protocols (Azure Site Recovery), achieving minimal downtime and ensuring operational continuity.

CERTIFICATIONS

AWS Certified Developer - Associate

AWS • 2025

AWS Certified Cloud Practitioner

AWS • 2024

SKILLS

- **Big Data & Distributed Systems:** Apache Spark, Kafka, AWS EMR, Dask, Hadoop, PySpark
- **Machine Learning & MLOps:** TensorFlow, Keras, Scikit-Learn, PyTorch, MLflow, Hugging Face Transformers
- **Programming:** Python, JavaScript, TypeScript, SQL, C/C++, Rust, Shell Scripting
- **Frameworks & Libraries:** Flask, FastAPI, React, Angular, Node.js, Pandas, NumPy, Streamlit
- **Cloud & Containerization:** AWS, Azure, Docker, Docker Compose, Kubernetes, Terraform, GitHub Actions, KVM/QEMU
- **Databases:** SQLite, DynamoDB, PostgreSQL, MySQL, MongoDB, Oracle SQL, Redis
- **Web & Front-End:** HTML5, CSS3, JSON, REST, Responsive Design, UI/UX
- **Architecture & Methodologies:** Microservices, Serverless, Event-Driven Architectures, Agile, CI/CD
- **Security & Performance:** TLS/SSL, Vulnerability Scanning, CloudWatch, WireGuard, OpenSSL, Pi-hole
- **System Administration:** Systemd, Cron, SSH, Version Control (Git), Arch Linux, Remote Access (VNC/RDP)