

# Matthew Chirichella

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📍 Lake Ronkonkoma, New York, United States ✉ mc@matthew-chirichella.com 📞 6315609048 🌐 in/matthew-chirichella 🌐 www.matthew-chirichella.com

## SUMMARY

An experienced Software Engineer and Data Scientist with over 5 years of expertise in delivering scalable, data-centric solutions. At Beep Boop Inc., I built high-performance Java applications using Google HTTP Client Library, Caffeine, and the AWS JavaScript SDK, leveraging microservices and CI/CD pipelines for seamless scalability. At Rotobot AI, I developed web applications with FastAPI, Celery, and Redis, integrating Azure Cosmos DB for efficient NoSQL data management. At Marcum Technology, I created predictive models in Power BI and automated ETL processes using VB and AWS QuickSight. Proficient in Python, SQL, Java, and cloud technologies, I excel in designing data pipelines, driving actionable insights, and mentoring teams. My passion lies in transforming complex challenges into innovative, data-driven solutions.

## EXPERIENCE

### Software Engineer/CEO | Beep Boop Inc. | Lake Ronkonkoma | May 2020 - Present

- Developed scalable, high-performance Java applications utilizing libraries such as AWS JavaScript SDK, Caffeine, Jackson, Apache Commons, and Google HTTP Client Library, providing robust solutions for client-focused projects.
- Built and deployed containerized microservices with Docker, orchestrated using Amazon ECS, and enhanced CI/CD pipelines through integration with GitHub and/or DockerHub for efficient version control and deployment.
- Designed and implemented SEO-optimized, secure websites for clients using modern web technologies including CSS, SASS, Node.js, HTML, and JSON, incorporating WAF and DDoS protection for improved security.
- Configured distributed EC2 environments across multiple availability zones employing Elastic Load Balancers (ELB, ALB, NLB) to ensure high availability, fault tolerance, and seamless scaling.
- Published Visual Studio Code themes for JavaScript and Python to enhance code clarity and aesthetics, supporting the developer community and aiding in personal programming efforts.
- Delivered reliable, secure, and API-driven applications using Spring Boot, integrated with AWS services such as API Gateway and DynamoDB, ensuring strong and efficient backend processing.

### Full-Stack Developer | Rotobot AI | Boston, MA | July 2024 - September 2024

- Developed and maintained complex web applications using FastAPI, Celery, and Redis for backend processing, integrating with Azure Cosmos DB for scalable NoSQL database management.
- Designed and Managed database schemas using Pydantic, PySpark, and Azure Cosmos DB to ensure data validation, efficient storage, and retrieval operations from our stack.
- Collaborated with Cross-Functional Teams to diagnose issues, optimize API performance, and enhance system security, contributing to the overall success of the launch of our application.

### Data Analyst | Marcum Technology | Melville, New York, United States | August 2022 - April 2024

- Scripting software in VB for the Formatting and Processing of Ledgers from QuickBooks to get ACID compliance during the ETL phase.
- Building Analytical and Predictive models with client data in PowerBi, AWS QuickSight, and other BI tools such as Tableau to develop functional, actionable, and pleasing APIs.
- Running custom tests on the aforementioned formatted Ledgers using TeamMate Analytics to generate reports from the Gathered Requirements in the planning phase of the DevOps lifecycle.

### Chief IT Technician & Software Engineer | Arma Container Corp | Jan 2021 - Aug 2022 • 1 yr 8 mos | January 2021 - August 2022

- Collaborated with multiple teams to diagnose and repair circuitry issues in industrial machinery, resulting in an increase in overall machinery uptime.
- Utilized technical expertise in IT and software engineering to design and deploy highly-available, fault tolerant, 99.99999999% durable network systems across 4 warehouses with 30ms latency.
- Identified cost-effective hardware and software solutions such as migrating to Azure's IaaS model, increasing operational efficiency for both management and factory employees, therefore decreasing Storage and Server costs by over \$56,000 annually.

## EDUCATION

### Masters of Science - M.S., Cyber security | St. Joseph's University | 3.8

Patchogue, NY | 2025

### Bachelor of Applied Science - BAsC, Computer Information Technology | St. Joseph's University New York | 3.7

Patchogue, NY | 2024

## CERTIFICATIONS

## **AWS - Certified Cloud Practitioner | AWS | 2024**

- Demonstrates knowledge of the AWS Cloud, real-time data pipelines, deploying, scaling, and managing data-driven applications and models in the cloud

## **AWS - Certified Developer Associate | Amazon | 2024**

- Demonstrates expertise in building, deploying, and optimizing applications on AWS
- Includes automating data workflows, integrating APIs, and optimizing performance
- Proficiency in Lambda, DynamoDB, and CodePipeline

## **COURSEWORK**

### **CYB 560 - NETWORK SECURITY | St. Joseph's College | 2024**

- Analyzed network security issues and implemented solutions for both wired and wireless systems, focusing on OSI model and common attacks.
- Conducted penetration testing and deployed preventive measures including encryption, firewalls, and security standards for various network types.
- Completed practical projects using Packet Tracer to design/ secure network infrastructures & participated in virtual labs for hands-on experience with network defense tools.

### **COM 230 - SOFTWARE ENGINEERING AND METHODOLOGY | St. Joseph's University | 2024**

#### **| Software Engineering, Collaboration, Project Management**

- Group project on hypothetical software development of appointment system for Doctor's Office
- Implementing Process Models based upon what criteria was specified through requirements gathering.
- Documentation skills for updates and plans made throughout the software development lifecycle

### **COM 390 - Advanced Application Programming and Database Systems | St. Joseph's University | 2023**

#### **| Application-Design strategies, System Analysis, Embedded SQL, Visual Basic.Net.**

- No-SQL DB back-end creation
- VN.Net integration for front-end
- Linear Regression calculated in home-grown application with gathered Data to support proposed hypothesis

## **INVOLVEMENT**

**Member | Upsilon Pi Epsilon Computer Science Honor Society | April 2024 - Present**

**Member | IEEE Computer Society Technical Council on Software Engineering | November 2019 - Present**

## **SKILLS**

Industry Knowledge: Data Structures, Cybersecurity, T-SQL, Stored Procedures, Robotic Process Automation, Business Management, Financial Analysis, Business Analysis, Data Analysis, Accounting, Teaching, Systems Engineering, Networking, Mathematics, Coding, Program Design, Debugging, AWS Knowledge, Agile Software Development

Tools & Technologies: NoSQL, VB.NET, Transact-SQL, JavaScript, Oracle SQL, UiPath, Databases, VBA, JavaScript, Python, noSQL, Amazon S3, AWS RedShift, AWS Glue, Amazon EC2, Amazon Lambda, AWS CodePipeline, AWS DynamoDb, MongoDB, Amazon RDS

Languages: English, Spanish