Matthew Chin

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EDUCATION

University of Maryland

College Park, MD

Bachelor of Science in Computer Science, Minor in Business

Jan. 2024 - May 2027

EXPERIENCE

Undergraduate Data Research Assistant

Feb. 2025 – Present

Digital Media Lab, UMD

College Park, MD

- Build Chrome Extension + Next. is frontend to scrape and visualize live news metadata, using Chart. is, TypeScript, and DOM parsing
- Designed interactive dashboards and visualizations plotting engagement metrics, enabling researchers and local news anchors to analyze user interaction patterns
- Implemented live data pipelines for journalism platforms (e.g., Baltimore Banner), improving efficiency of content analysis

Development Intern

Jun. 2025 – Present

Colexia

New York, NY

- Built scalable analytics platform processing 1000+ events/second using Spring Boot, Kafka, PostgreSQL, and **Docker**, reducing API latency by 85%
- Automated data workflows using Python scrapers and Google Drive API integration, accelerating data reports by 70% and supporting ML dataset standardization

Helpdesk IT Technician

Aug 2020 - May 2023

Newton Upper Falls, MA

Stone Rehabilitation & Senior Living

- Shadowed and delivered Tier 1+2 support for 200+ staff, resolving hardware and networking issues.
- Configured and maintained workstations, printers, internal system hardware, reducing downtime and ensuring HIPAA compliance.

Projects

Colexia Event Ingestion Platform | SpringBoot, Kafka, PostgreSQL, Next.js

- Built scalable analytics platform processing 1000+ events/second using **Spring Boot** microservices, **Kafka**, PostgreSQL, and Redis caching, achieving 85% API latency reduction with Docker containerization
- Developed event-driven data pipeline with real-time aggregation, REST APIs, fault tolerance, and comprehensive monitoring using Prometheus and Spring Boot Actuator for production observability
- Created full-stack dashboard with Next.js, TypeScript, and React featuring responsive UI, real-time visualization, and analytics insights consuming optimized REST endpoints with sub-100ms response times

Smart Story Agent | Next. is, TypeScript, AI

- Developed a full-stack web app analyzing live news articles with Claude API + custom algorithms for engagement metrics.
- Designed interactive UI with Tailwind CSS+Framer Motion, increasing usability and visualization quality.

SIEM Local Log Analysis & Threat Detection | SQLite, Security, Docker

- Engineered an end-to-end data pipeline to ingest heterogeneous log formats (Windows EVTX/JSON, Linux syslog), normalize them into a unified schema, and persist structured records in SQLite.
- Implemented a configurable YAML-based rules engine with Pandas queries, generating alerts with severity metadata and automating daily HTML/CSV reports.
- Built a Flask web dashboard with interactive charts/tables for real-time event visualization and alert triage.

Technical Skills

Languages: Java, Python, C, (Rust, OCaml, C++)

Frameworks: React, Next.js, Spring Boot, Tailwind, Chart.js

Developer Tools: Git, Spring Boot, Docker, Maven, BeautifulSoup4, Claude API, Apache Kafka, Prometheus Certifications: Tata Cybersecurity Job Simulation, Mastercard Cybersecurity Job Simulation, AWS ML Solutions (Coursera), CompTIA Sec+ (in progress), SEEDLabs PRNG Lab (Ubuntu Linux VM 20.4)

Other: Seal of Bi-literacy (Spanish & English, 2022)

Coursework: Cryptography, Computer Architecture, Data Structures & Algorithms, Organization of PL's, Computer Systems (C), OOP I/II, Discrete Structures