Matthew Chin

781-697-4238 | matthwchin@proton.me | linkedin.com/in/matthewleechin | github.com/balnc9 | balnc9.github.io/

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.js frontend to scrape and visualize live news metadata, using Chart.js, TypeScript, and DOM parsing
- Designed interactive dashboards and visualizations plotting engagement metrics, enabling researchers and local news anchors to analyze user interaction patterns
- Applied secure coding practices in extension development, managing permissions, content scripts, and safe storage APIs.

Development Intern Jun. 2025 – Present
Colexia *New York, NY*

- Built Python + BeautifulSoup4 scrapers to index/organize product datasets, improving dataset standardization for external ML models
- Contributed to Firebase-based wait list website to support early-stage startup growth and exposure.
- Automated product ingestion pipeline into xlsx folders using Google Drive API, accelerating data reports by 70%

Helpdesk IT Technician Aug 2020 – May 2023
Stone Rehabilitation & Senior Living *Newton Upper Falls, MA*

- Shadowed and co-delivered Tier 1/2 helpdesk support for 200+ staff, resolving hardware, software, and networking issues in a healthcare environment.
- Configured and maintained workstations, printers, internal system hardware, reducing downtime and ensuring HIPAA compliance.
- Supported end-users with account access, endpoint management, and incident troubleshooting to maintain system security.

Projects

Pseudo Random Number Generation Lab | *SEED Labs (Ubuntu VM)*

- Investigated weaknesses in Linux PRNGs (/dev/random and /dev/urandom) and conducted statistical randomness testing.
- Built a key-recovery attack on AES by exploiting poor entropy, demonstrating cryptographic vulnerabilities.
- Implemented secure key-generation in C for 128/256-bit encryption, applying entropy analysis from kernel-level sources.

VFC Community App | *Next.js, TypeScript, AI*

- Contributed to a cross-platform serving 250+ users, building event management, push notifications, and MFA authentication.
- Built reusable component library + custom hooks that reduced code duplication by 40%

Baltimore Banner Scraper | *JavaScript, HTML, CSS, Chart.js*

- Engineered a Chrome Extension (Manifest v3) to scrape article metadata (word count, images, headers) and visualize results in real time.
- Leveraged Web Storage + DOM parsing for efficient data restructuring and UI rendering

Technical Skills

Languages: Java, Python, C , (Rust, OCaml)
University Coursework: Cryptography, Computer Networks, Computer Systems, Algorithms, Organization of Programming Langauges, Discrete Structures, OOP I/II.
Certifications: CompTIA Sec+ (Expected Jan. 2026), Tata Cybersecurity Job Simulation, **Mastercard** Cybersecurity Job Simulation, AWS ML Solutions (Coursera)
Other: Seal of Bi-literacy (Spanish & English, 2022)