

David Lemos

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EDUCATION

The Pennsylvania State University

Bachelor's of Computer Science, Minor in Mathematics

University Park, PA

Aug 2017 — May 2021

- Cumulative GPA: 3.73 | Dean's List, Bunton-Waller Scholarship

WORK EXPERIENCE

M&T Bank

Buffalo, NY

Senior Software Engineer

Jul 2024 — Nov 2025

- Implemented a two-layer caching solution for Retail Data Warehouse Party Data queries, reducing traffic to production systems by 40% through optimized handling of repeat customer lookups
- Built comprehensive monitoring for Partybot using ELK stack dashboards and MS Teams webhook alerts, enabling developers to quickly triage and resolve production incidents
- Co-organized M&T's first annual tech-wide hackathon, focusing primarily in giving engineers the tools necessary to rapidly prototype without compromising bank-wide security controls

Software Engineer

Jul 2023 — Jul 2024

- Built Partybot, a Go application that correlated datasets across the Retail Data Warehouse to enable customer identification without classified PII (SSN/TIN), leveraging Go's concurrency model to efficiently process hundreds of thousands of customer events daily in real-time
- Accelerated developer productivity across the organization by publishing reusable Docker images, providing expertise in application scalability, and creating quickstart GitLab & OpenShift templates with built-in CI/CD best practices
- Delivered new features for Branch Insights, expanding its use cases to include International Wire Research, Fee Reversal Fraud Prevention, and serving as a model for other teams aiming to interface with the Retail Data Warehouse

Technology Development Program Engineer

Jul 2021 — Jul 2023

- Built Branch Insights, an internal Angular and Java Spring Boot application on the Red Hat OpenShift platform that enabled back-office employees to analyze bank processes without impacting production systems
- Modernized critical Wire platform services by migrating legacy TIBCO BusinessWorks solutions to Java Spring Boot, improving efficiency while maintaining feature parity
- Developed customer notification functionality for Wire Advices, delivering real-time money movement updates via email and text for multi-million dollar daily transaction volumes

PROJECTS & EXTRACURRICULAR ACTIVITIES

Proxmox Home Lab

- Designed and deployed a production-grade home infrastructure running 30+ services including media servers (Plex, Audiobookshelf, Navidrome), game servers (Pterodactyl), and administrative tools (Caddy, Gotify)
- Implemented enterprise patterns: ZFS RAID-Z1 for data integrity, automated Ansible playbooks for configuration management, SSO via Authelia with TOTP 2FA, and automated backups via Proxmox Backup Server

HackTheBox Cyber Skills Benchmark Business CTF 2025

May 2025

- Represented M&T Bank in my first ranked team-based Capture the Flag, competing among 796 total teams
- Placed in top 3 within my team for flags captured as the only newcomer among a cybersecurity-personnel dominant team
- First-blooded and solved multiple challenges in Reversing, Coding, and ICS (Industrial Control Systems) categories

GymSniper

Jan 2025 — Mar 2025

- Built a Telegram bot in Go that monitored gym class availability and automated registration for time-gated bookings
- Reverse-engineered the gym's mobile app API using mitmproxy to intercept HTTPS traffic and document endpoints

SKILLS

- **Programming Languages:** Go, Python, Java, SQL, TypeScript, JavaScript, HTML/CSS, Bash
- **Technologies:** Java Spring Boot, React, Angular, Tailwind CSS, Flask, Gin, Charm, Git, Linux, Docker, LXC, Proxmox VE, Caddy, NGINX, OpenShift, Redis, Ansible, GitLab, Github