

# Vasyl Yakovishak.

SENIOR SOFTWARE ENGINEER

Brooklyn, NY · (646) 763-3423 · vyakovishak@gmail.com  
github.com/vyakovishak · linkedin.com/in/vasyl-yakovishak-80b84b164

## EXPERIENCE

### Senior Software Engineer · Aspen Power Partners

May 2023 — Present · Brooklyn, NY

- ▶ Lead **AMOS**, the production SaaS asset managers and field technicians use daily to run the company's solar fleet. **FastAPI** + **SvelteKit**; dual Postgres; **OPA**-driven RBAC synced every minute; topic-routed WebSocket; stale-while-revalidate caching with SingleFlight coalescing; 75-test Selenium suite targeting the race-class bugs unit tests miss.
- ▶ Architected **Aegis**, a governed multi-agent platform on **AWS Fargate** running LLM agents as isolated **OpenClaw** containers — FastAPI control plane, Next.js operator dashboard, four-stack **AWS CDK** with GitHub OIDC. Designed the **GateKeeper** AI gatekeeper that reviews every external write action and auto-approves or escalates to a unified human approval inbox.
- ▶ Built the agent surface: **eight OpenClaw plugins** (lifecycle, governance, inter-agent messaging, canvas, scheduling, admin, GateKeeper, AMOS bridge) and a fleet of **MCP servers + CLIs** — `ultra_mcp` for Microsoft 365 over HyDE-routed Weaviate, NL → Dynamics 365 OData, Python+Rust SharePoint toolkit indexing 305 sites / ~4M files, PowerTrack alerting.
- ▶ Rewrote **AIVA** as a multi-tenant **GraphRAG** platform on **LangGraph + Weaviate** with Cohere reranker. Three-path query graph (~200 ms template / ~50 ms suggestion / ~3 s reasoning); epsilon-greedy bandit tunes the BM25-vs-vector blend per department from real feedback.
- ▶ Built a 16-day **solar forecasting** tournament across **TiDE, TFT, Darts, LightGBM/XGBoost** with Optuna HPO. Custom **MSCA** metric solves the dawn/dusk divide-by-zero problem; per-site seasonal bias correction added ~17% accuracy. Companion XGBoost predicts inverter failures 7/14/30 days ahead across **189 sites / ~2,000 units**.
- ▶ Reverse-engineered Microsoft Teams' bot media stack (**Ghidra, ILSpy, Frida, Wireshark**), reimplemented **MS-NMF** and **NBFS** wire protocols in Python from scratch, bridged the proprietary **SATIN** audio codec via `ctypes` — shipped a Teams voice agent that bypasses the official Bots Media SDK.
- ▶ Maintain **AspenServicesAPI**, the internal FastAPI backend on AWS — decorator-based bot-manager framework, Meeting Analyzer NLP pipeline with adversarial verification, Outlook add-ins, capacity-testing against PowerTrack/Locus/SolarEdge, and Presidio PII tooling.

### Geek Squad Agent · Best Buy

July 2017 — May 2023 · Brooklyn, NY

- ▶ Designed and shipped an internal Client Units Management Program in Python with an automated activity report for managers. Reduced tracking errors **15%**, improved response times **13%**, and lifted manager-visible productivity **8%**.

### Contractor Bot Developer

June 2020 — May 2021

- ▶ Built high-throughput bots for outside clients handling **10,000+ daily requests**; designed supporting SQL databases and verification flows. User engagement grew **10%**.

## EDUCATION

### B.S. Computer Systems, Software Engineering

New York City College of Technology (CUNY) · May 2023 · GPA 3.5

### A.A.S. Web Development & Administration

Kingsborough Community College (CUNY) · 2016 — 2019

## TECHNICAL SKILLS

**Languages:** Python · TypeScript · Rust · C# · Java · SQL · Solidity

**Backend / Frontend:** FastAPI · SQLAlchemy · Alembic · Pydantic · FastMCP · SvelteKit · Next.js · React · Tailwind · Vite · Three.js

**ML / AI:** PyTorch · PyTorch Forecasting · NeuralForecast · Darts · LightGBM · XGBoost · Optuna · LangGraph · OpenAI · Cohere · RAGAS · Presidio · spaCy

**Data / Cloud:** PostgreSQL + pgvector · Weaviate · Qdrant · Redis · DuckDB · pandas · AWS (ECS/Fargate, RDS, S3, Secrets Manager) · AWS CDK · Docker · OPA · GitHub OIDC

**Microsoft / RE:** Graph · MSAL · Azure ACS · Dynamics 365 · SharePoint · Ghidra · ILSpy · Frida · Wireshark · ctypes · MS-NMF/NBFS. **Certs:** Information Security Basics (Texas A&M EES) · Networking Fundamentals.