

Karim Smires

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EDUCATION

Rutgers University, School of Engineering — Piscataway, NJ

M.S., Machine Learning — GPA: 3.50

Sept 2025 – May 2027 (expected)

B.S., Electrical & Computer Engineering — GPA: 3.66 — Summa Cum Laude, Dean's List (5×)

Sept 2021 – May 2025

PROFESSIONAL EXPERIENCE

Guild | *Software Engineering Intern, Benefits Administration — Coverage Squad* — Denver, CO Jun 2026 – Present

- Built and shipped a net-new production backend-for-frontend service from an empty repo in 8 weeks — Python 3.13 on AWS (Lambda, API Gateway, CDK/SAM), Auth0 machine-to-machine auth spanning 3 repos, CI/CD with canary deploys, custom domains, Datadog observability, and Tier 0 compliance; 395 tests at 98.5% coverage, serving live traffic today
- Extracted a protocol-neutral service layer and shipped 6 MCP tools to the company's production AI gateway, letting support staff investigate member eligibility in natural language instead of hand-querying S3, Snowflake, and DynamoDB — adoption ramped to 86 calls in the first 3 days and leadership requested a demo
- Used those tools to root-cause a live member escalation, uncovering a systemic identity defect; the resulting platform sweep reconciled 762K records, surfaced 1,031 orphaned authorizations, and proactively unblocked 5 affected members
- Eliminated an IAM role leak that had made the team the company's largest staging IAM consumer: fixed the CDK root cause, reclaimed 373 orphaned roles via a safeguarded dry-run-first nightly GitHub Action, and published the fix org-wide for reuse
- Delivered a second production service (catalog builder: Aurora Serverless v2, draft CRUD + metrics engine, Auth0 M2M) while on loan to a second org, closing 6 tickets in 3 days in parallel with core squad work
- Merged 59 PRs (+48K lines across 9 repos), closed 46 Jira tickets, triaged 3 production incidents, mentored a fellow intern, and contributed Module Federation detection to the AI skills repo used by every engineer at the company

Charge Anywhere | *Software Engineering Intern* — Piscataway, NJ

Jun 2024 – Aug 2024

- Developed a full-stack e-commerce platform (Node.js, Python, C#) with JSON-driven menu management and secure payment gateways supporting both credit card and cryptocurrency (XLM, ETH) transactions
- Built responsive JavaScript UIs integrating a customizable AI chatbot assistant and blockchain infrastructure

Rutgers University | *Student Worker — Tutor & Grader* — Piscataway, NJ

Oct 2023 – Present

- Tutored 100+ students in introductory computer engineering and STEM courses; graded for multiple engineering courses in collaboration with professors and TAs

PROJECTS & PUBLICATIONS

GENV: The Global Environment Manager — Open Source, Go

Mar 2026 – Present

- Lead developer of a cross-platform package and environment manager that tracks, syncs, and reproduces software environments across Linux, macOS, and Windows by unifying standard package managers behind a single CLI

Public Terminal — Open Source, Go (Bubble Tea)

2026

- Built a btop-style trading TUI for Public.com: multi-account live portfolio streaming, market-cap-weighted direct index investing across 5 indexes (parallel market-cap fetching with caching), and automated daily rebalancing via systemd timers with margin support and pattern-day-trading protection; ships prebuilt Linux/macOS binaries

DrinkSync: A Sustainable Hydration Tracking System — IEEE Publication

Feb 2026

- Co-authored a published IEEE paper on a low-cost IoT smart coaster; engineered the hardware (Arduino Nano, HX711 load cells, MPU6050 IMU) and a Kotlin Android app with BLE streaming, Room persistence, and gamified goal tracking

SKILLS

Languages: Python, TypeScript/JavaScript, Go, Java, Kotlin, C/C++, C#, Swift, Rust, SQL, MATLAB, Verilog

Cloud & Infrastructure: AWS (Lambda, API Gateway, CDK, SAM, Aurora, DynamoDB, S3, IAM, Route53, CloudWatch), Docker, GitHub Actions, Datadog, Auth0, Snowflake, MCP servers

AI/ML: PyTorch, TensorFlow, Hugging Face, OpenCV, CUDA, Pandas, NumPy; LLMs, NLP, computer vision, reinforcement learning