Sean P. May

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Education

Northeastern University, Khoury College of Computer Sciences Sep. 2022 – Dec. 2026
B.S. in Computer Science and Mathematics, AI Concentration; GPA: 3.58/4.00 *Boston, MA*

- **Honors:** Dean's Scholarship; Dean's List | **Coursework:** Algorithms, Distributed Systems, Computer Systems, AI

Experience

Capital One Jun. 2026 – Aug. 2026
Software Engineering Intern (TIP Program) *Richmond, VA*

- Built a full-stack feature (Go, PostgreSQL, Angular) auto-filling saved airline member IDs for rewards-point transfers; indexed the backing query to cut member-ID lookups from 300 ms to 7 ms (43x).
- Removed a redundant processing email for 96% of users after finding 97% of transfers settle within 5 minutes.

ComicScore Jan. 2026 – Jun. 2026
Software Engineer (Freelance) *New York, NY*

- Built an AI comic-grading platform (SwiftUI iOS, FastAPI/AWS) matching photos to a 2.6M-issue catalog and grading them on the CGC scale with a vision LLM bounded by a deterministic 112-defect rule engine.

NExT Consulting Sep. 2025 – Dec. 2025
Software Engineering Consultant Co-op *Boston, MA*

- Engineered an agentic AI tutoring system (LangChain multi-agent workflows, pgvector RAG over course materials) that proactively plans each student's next steps from a profile that grows across sessions.
- Ran competitive analysis of 38 commercial AI platforms and 21 university implementations to shape the system.

General Dynamics Electric Boat Jan. 2024 – Jul. 2024
Software Development Co-op *Groton, CT*

- Led REST-API automation replacing manual validation of ∼1,000 database assets, saving $10,000+ monthly.
- Automated XML transformation testing, eliminating 10+ hours of manual QA per month.

Projects

Alternative Data Pipeline | ***AWS Lambda, SQS, EventBridge, Athena, SAM*** Sep. 2025 – Apr. 2026

- Architected a serverless, infrastructure-as-code pipeline syncing 175,000+ job postings daily from 6 ATS platforms across 61% of the S&P 500 into PostgreSQL and an S3/Athena lake for under $15/month.
- Eliminated Lambda timeouts (from ∼37 per cycle to zero) with time-budgeted scrapes, 16-way concurrent fetching, and SQS self-continuation: workers commit progress and re-enqueue past the 15-minute ceiling.
- Factored scraping into a shared runner with per-ATS adapters, 2 platforms to 6 at ∼80 lines each.

AI Chief of Staff (Pharos) | ***LangGraph, FastAPI, PostgreSQL, ECS Fargate*** Jan. 2026 – Apr. 2026

- Designed the event-driven core of a 7-engineer multi-agent system that scores delivery risk across concurrent client projects from 32 GitHub, Slack, Linear, and Notion webhook types.
- Built its 3-phase ingest worker: per-project Redis locks and timestamp-scored queues order each project's events while projects analyze concurrently, with retry backoff and dead-letter queues.

Wildfire Spread Prediction | ***PyTorch, GEE, FastAPI*** Jan. 2026 – Apr. 2026

- Modeled wildfire spread from satellite images (F1 = 0.929) on held-out fires.
- Built a 38-channel ConvGRU-U-Net (CBAM, focal/Tversky) over 11 fused satellite sources.

Life Dashboard | ***FastAPI, React, AWS Lambda, Fargate, AWS CDK*** Oct. 2025 – Mar. 2026

- Built a full-stack dashboard (FastAPI, React/TypeScript) unifying OAuth Garmin, calendar, news, and nutrition logging, with scheduled LLM briefings.
- Cut hosting from ∼$10/mo to under $2 with a scale-to-zero CDK stack (CloudFront, 4 arm64 Lambdas).

Technical Skills

Languages: Python, Go, TypeScript, JavaScript, Java, C, SQL, Swift, HTML/CSS
Frameworks & Libraries: FastAPI, React, SQLAlchemy, LangChain, LangGraph, PyTorch, scikit-learn, pgvector
Cloud & Infrastructure: AWS (Lambda, Fargate, SQS, S3), CDK, Terraform, Docker, PostgreSQL, Redis, CI/CD
AI/ML: RAG, LLM & Agentic Systems, OpenAI & Anthropic APIs, Computer Vision