Aarav Sikriwal

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CS & Business student who has worked on every side of a company: software and AI that can be trusted, executive reporting at a Fortune 500 biotech, operations at a venture-backed startup, production for a fashion brand, and founding a custom shoe business.

Education

Northeastern University · B.S. Computer Science & Business Administration, Minor in Psychology *Boston, MA · Expected May 2028*
Dean's List, Spring 2026. Coursework: Algorithms, Object-Oriented Design, Databases, Statistics, Leveraging AI for Business.

Skills

Engineering: C++17, Python, Rust, TypeScript/JavaScript, Java, SQL; React, Electron, Node.js, FastAPI, Flask; Docker, Kubernetes (k3s), GitHub Actions CI/CD, WebAssembly, WebGPU, Linux, Git
AI, Data & Finance: PyTorch, LLM inference and quantization, RAG, computer vision (YOLO, OpenCV), model evaluation; pandas, NumPy, PostgreSQL, Power BI, Excel; options pricing, backtesting, multiple-testing correction
Business & Operations: Jira (sprint planning), ServiceNow, Workday, HubSpot CRM; manufacturer and supplier coordination, sales, process improvement, grant and legal document review, records management, event planning
Design & Content: clothing and graphic design, photo and video shoots, Instagram reels, copywriting, Adobe Suite, Canva

Experience

Regeneron Pharmaceuticals · IT G&A Intern · Fortune 500 biotech *New Jersey · Jun – Aug 2026*
- Turned a weekly IT project-status report that several people spent hours assembling into a 30-minute task for one person, as sole developer of an automated reporting pipeline (Python, Node.js, Jira, Planview).
- Designed it to be trusted: a deterministic health-scoring engine computes every metric, the LLM only writes the narrative, and data-quality checks flag trends built on thin data.
- Presented it to the 15-person department; maintained Jira backlogs and worked daily in Workday (HCM) and ServiceNow (ITSM).

Tubender · Software Development & Business Operations · Venture-backed CNC startup *Boston, MA · Jan – May 2026*
- Built the operator application that lets electricians with no software background run the startup's Mark 1 CNC conduit bender on-site (Electron, Python/Flask, G-code over TCP).
- Managed HubSpot CRM leads, edited grant applications and legal agreements, and cleared operational bottlenecks.

Course Tutor · Software Engineer · AI tutoring startup *Oct 2026 – Present*
- Architected the backend behind its AI tutor from an empty repository (Python, FastAPI, PostgreSQL with pgvector): 100+ API routes, 1,700+ tests, adaptive learning per student, and self-hosted LLMs grounded in course materials.

AFTRMRKT · Product Designer · India-based fashion brand, part-time *Remote · May 2024 – Jun 2025*
- Took seasonal collections from trend research to finished product, managing production directly with manufacturers, placing purchase orders, and selling the finished pieces.
- Produced photo and video shoots and turned the footage into Instagram reels with original copy.

Northeastern University · Event Manager · Part-time *Boston, MA · Jul 2024 – May 2025*
- Planned events for 1,000+ students with campus departments, designed promotions, and led volunteer teams.

Advent Analytics · Data Analyst / Web Developer · Part-time *Remote · Jun 2024 – Jan 2025*
- Migrated 300+ employee records from a legacy HR system to Workday with full data integrity (Excel), designed the company website, and built a bookkeeping front end (Java, Excel).

KOCUSTOMS · Founder · Custom shoe business *May 2021 – Jul 2022*
- Grew it to 78 customers across the US, Canada, and India through social media and supplier partnerships.

Projects

8 projects and 4,000+ automated tests, each written up at wearechintu.com

Chintu · Git client for people who have never used a terminal · C++17, React, Electron *Dec 2025 – Present*
- Shipped v1.1.0 for Windows and macOS: a C++17 core driving the git CLI behind an authenticated loopback API, backed by 1,093 tests and 9 CI workflows (CodeQL, gitleaks). Also produced its Instagram launch content.

mindcontrol · LLM inference engine built from scratch · Rust, WGSL, WebGPU *Sep 2026*
- Runs Google's Gemma 2 2B in the browser on 12 hand-written GPU kernels with no ML runtime, proved correct on all 26 layers against Hugging Face, and cut from 5.2 GB to 1.6 GB with 4-bit quantization.

Quipu · Options-analytics tool · Python, FastAPI, pandas *2026*
- Black-Scholes-Merton, CRR binomial, and implied-volatility engines that translate greeks into plain-dollar risk.

squirrel of interest · Self-retraining edge vision system · PyTorch, YOLO11n, Raspberry Pi *Oct 2026*
- Retrains nightly on a Raspberry Pi 5 behind a promotion gate with versioned rollback: 9 retrains, 4 promoted, 3 rolled back.

Also built: Extra 15pc Gum, C++17 drone firmware passing 66 of 78 simulation scenarios vs. PX4's 62; Stepwise, a Rust compiler with a debugger that runs backward; tidy, a PostGIS litter map; 536 backtests under Bonferroni and FDR corrections; a k3s home lab.

Additional

- **Work ethic:** 2+ years of part-time jobs alongside school (2023 – 2025), including customer service at ShopRite and Wendy's.
- **Leadership:** India Center Youth Lead; Northeastern Event Manager and official university mascot.
- **Interests:** weekly podcasts on business, tech, finance, news, true crime, and society.