

Spencer Davis Banko

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EDUCATION

Georgia Institute of Technology <i>Bachelor of Science in Computer Science, Concentration in Systems/Databases and AI</i> - Minor: Business and Computing - Coursework: Design and Analysis of Algorithms, Data Structures and Algorithms (Java), Database Systems (SQL), Computer Organization and Programming (C), Cybersecurity Fundamentals (C++), HCI (UI/UX), Machine Learning (Python)	Atlanta, GA <i>Expected: May 2028</i> GPA: 3.89/4.0
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EXPERIENCE

Shopify <i>Software Engineering Intern – Monetization</i> - Led Shopify Plus's first self-service contract renewal and downgrade workflow, letting 35,000+ merchants representing \$87.5M in monthly contract value self-serve plan changes, cutting thousands of hours of manual processing per year - Designed the contract state model and backing schema on GCP: a unique partial index enforcing one live election per renewal, an append-only ledger, and an idempotent job so re-runs cannot double-process - Designed, implemented, and shipped the workflow end to end in Rails, React, TypeScript, and GraphQL, directing two other engineers and driving technical decisions with product and design - Replaced a coarse plan-name access check with 13+ granular entitlements in Ruby on Rails and GraphQL, modularizing Admin page access across 40+ route manifests - Backfilled entitlements across every merchant shop with zero downtime behind staged feature flags, letting the monetization team launch plans and change page access through configuration alone	New York, NY <i>June 2026 – August 2026</i>
LockChain.AI <i>Full-Stack Software Engineering Intern</i> - Designed and built an agent-orchestrated backend system using LLMs, AWS Strands, and secure APIs to validate crypto entities and produce confidence-scored results, cutting manual review by 40–60% - Implemented structured logging, prompt versioning, and evaluation workflows using Langfuse, enabling faster debugging, consistent agent behavior, and easier iteration on production prompts - Standardized agent inputs and outputs and executed supporting agents in a graph-based parallel workflow, achieving 2× analysis throughput and reducing redundant analyst review and end-to-end processing time - Delivered production full-stack features including backend services and internal Admin UIs using Python, AWS, and Pydantic	Atlanta, GA <i>Aug. 2025 – Dec. 2025</i>
Mercor <i>Machine Learning Engineer</i> - Completed 150+ MLE-bench debugging tasks for OpenAI and Anthropic, using Python, Git, and Linux to reproduce and minimally fix LLM-generated bugs in machine learning code, producing structured debugging logs and tightly scoped PRs - Reviewed peer submissions for correctness and protocol compliance, and contributed to task standards adopted across the project	Atlanta, GA <i>Sep. 2025 – Dec. 2025</i>
Protiviti Global Consulting Firm <i>Machine Learning Engineering Intern</i> - Built and deployed ML pipeline in Azure Databricks to predict hourly customer traffic across 1500+ stores, driving an estimated \$20M+ projected annual revenue from optimized remote appointment scheduling - Performed data cleansing and preprocessing of 1B+ datapoints using Databricks (PySpark, SQL, Python), ensuring data quality - Implemented an XGBoost model with 93% predictive accuracy, accounting for historical appointments, seasonality, and promotions	Atlanta, GA <i>May 2025 – Aug. 2025</i>

LEADERSHIP

Bits of Good <i>Product Manager – GT Scheduler</i> - Led development of GT Scheduler, a course scheduling platform used by 30,000+ students every month - Directed a team of eight engineers/designers through Agile sprints, weekly standups, and 1-on-1s, using survey data to inform decisions - Shipped a course insights page surfacing student-written class and professor reviews, and maintained product specs and sprint roadmaps	Atlanta, GA <i>Jan. 2025 – Dec. 2025</i>
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PROJECTS

NearBuy - 1st Place NYC Hackathon <i>React Native, Expo, TypeScript, Supabase, PostgreSQL</i> - Won 1st place and \$2,000 at the NYC Hackathon, shipping a working social shopping app in under 8 hours to help users discover NYC's 24,000+ independent retailers, encouraging NYC residents to shop locally - Implemented a binary-insertion ranking flow placing each purchase on a ranked shelf in $O(\log n)$ comparisons, plus a pannable Leaflet/OpenStreetMap view with distance sorting from device location and filters for store type, cost, and rating - Built a social activity feed surfacing friends' ranked purchases, persisted to Supabase with per-user row-level security	Aug. 2026
Beach Volleyball Tournament Platform <i>Vue, Supabase, TypeScript, SQL</i> - Launched and monetized a volleyball tournament platform serving 1,000+ monthly users, generating \$1,200 in annual recurring revenue - Built admin tools for event creation, team imports, pool assignments, seeding, score entry, and tournament configuration - Automated pool scheduling, tiebreaker calculations, standings generation, playoff bracket creation, and winner advancement logic - Selling platform to the collegiate beach volleyball governing body (ECVA) and public university athletic programs	Jan. 2026 – Present
Better Place Drones VIP <i>C++, PyTorch, QGroundControl, OpenGCS</i> - Implemented RRT-based flight path optimization in C++ for scout drones searching a 1,000 km² area under a 10-minute fire detection deadline, and applied machine learning to optimize the payload drone's route - Built a neural network pipeline using thermal sensor and smoke-particle data to classify high-risk vs. low-risk fires - Programmed autonomous flight execution using C++, QGroundControl, and OpenGCS, and co-authored the team's technical white paper for the XPRIZE Wildfire competition entry (team of 15)	Jan. 2024 – December 2024

TECHNICAL SKILLS

Languages: Python, Ruby, TypeScript, JavaScript, Java, SQL, C++
Frameworks: Ruby on Rails, PySpark, React.js, React Native, Node.js, Express.js, Next.js, Vue, PyTorch, Mongoose
Technologies: PostgreSQL, MongoDB, Supabase, GraphQL, REST APIs, AWS, GCP, Azure, Docker, Linux, Databricks, pandas, NumPy
Concepts and AI: Full-Stack Development, API Development, System Design, Database Design, CI/CD, Claude Code, AI Agents