

TED GERSHON

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EDUCATION

Carnegie Mellon University

Pittsburgh, PA

B.S. in Information Systems (Minors in Software Engineering, Artificial Intelligence)

Aug 2023 — May 2027

- Relevant Coursework: Data Structures and Algorithms, Computer Systems, Machine Learning, Foundations of Software Engineering, Competition Programming, Principles of Software Construction, Database Design

SKILLS

Languages: Python | SQL | TypeScript/JavaScript | C | Java | Ruby

Platforms: Databricks | Spark | dbt | PostgreSQL | MongoDB | Redis

Frameworks & Tools: Git | Docker | Next.js | Node.js | React | MLflow | Django | Rails

EXPERIENCE

Microsoft

Redmond, WA

Software Engineer Intern

May 2026 — Aug 2026

- Incoming summer intern on the Power Query Online team within Azure Data (Cloud & AI)

Pennybacker

Austin, TX

Data Engineer Intern

May 2025 — Aug 2025

- Delivered **5,300+** lines of production code powering investment dashboards used daily by **54 users** across 4 teams managing **\$5.1B AUM**, integrating internal and external data sources across **143** validation tests in Spark SQL
- Translated real estate and executive team dashboard requirements into dbt models, refactoring **14** models with Jinja templating to run on Databricks, cutting compile time by **57-85%**, and enabling property-level analysis
- Refactored GBDT training pipeline in Python (sklearn, MLflow) to centralize feature engineering across **3 asset classes** and automate logging for **36** configurations, improving consistency and eliminating manual output tracking

PGH Donut Dash

Pittsburgh, PA

Chairman & Lead Developer

Jan 2025 — Present

- Directing technical development and operations for 501(c)(3) initiative that has raised **\$263,000+** since 2018, managing full-stack platform (React, Node.js/Express, MongoDB, Stripe) with **12k+** site visits
- Re-architected Stripe integration for campaign-based payment workflows, migrated email automations from deprecated domain, and managed Cloudflare deployment and DNS configuration
- Currently leading sprint-based migration to Next.js architecture, implementing bug fixes and feature improvements

Carnegie Mellon University

Pittsburgh, PA

Teaching Assistant, Information Systems Milieux

Jan 2025 — May 2025

- Supported **120+** students through lab debugging and grading, focusing on relational database modeling (ERDs), SQL querying, and front-end web development (HTML/CSS/JS) with deployment via GitHub Pages

PROJECTS

BananaGains - Django, Next.js, React, PostgreSQL, Redis, WebSockets

March — April 2026

- Engineering transactional betting engine using database-level locking and ACID-compliant PostgreSQL to prevent race conditions across simultaneous trades, with atomic rollbacks on failure
- Architecting real-time market infrastructure with Redis-backed WebSockets to stream live probability updates, resolution notifications, and leaderboard changes instantly across clients

Odyssey - Python, Django, React, OpenAI, MCP, Mapbox GL JS

February 2026

- Placed **Top 10** out of **278** teams and **#2** in the Creative Arts track at CMU's TartanHacks
- Designed multi-agent MCP orchestration system with a Conductor agent coordinating 4 specialist agents (Archivist, Linguist, Stylist, Librarian) in parallel with real-time performance monitoring
- Built PDF-to-map pipeline with AI-powered location extraction that auto-generates interactive GeoJSON markers from uploaded books, rendered on era-themed Mapbox visualizations

SafePlate - Python, Django, Airia (Agentic AI), OpenAI, Claude

November 2025

- Engineered multi-agent orchestration system (GPT-4.1, Claude Sonnet 4) with automated validation and retry logic to ensure allergen-free recipe generation across ingredient and dietary constraints
- Built a full-stack Django app with a structured backend (models, forms, views, tests) and **37-unit** integration test suite covering LLM outputs, agent failure modes, and post-processing workflows

LEADERSHIP

ScottyLabs | Head of Logistics

May 2024 — May 2025

- Coordinated Pittsburgh's largest hackathon, TartanHacks, which had **750+** participants from over **18** countries
- Led the first iteration of NOVA, CMU's first GenAI hackathon with **130+** participants and **29** submitted projects