

MATTHEW GRABA

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SUMMARY

Full-stack software engineer with a Computer Science degree from the University of Minnesota and hands-on experience across backend architecture, relational data modeling, and modern frontend development. Comfortable owning systems end-to-end, from designing normalized PostgreSQL schemas and building idempotent ETL pipelines to shipping React/Next.js interfaces, with growing experience integrating LLMs into developer tooling and analysis pipelines. Recently architected and built a domain-driven backend and cross-platform mobile app from scratch, including authentication, data ingestion, and core application logic. Interested in roles that combine backend engineering depth with product ownership.

EDUCATION

Boston University

Master of Science in Software Engineering for AI

Boston, MA

Expected May 2028

Incoming graduate student; program begins August 2026.

University of Minnesota – Twin Cities

Bachelor of Science in Computer Science

Minneapolis, MN

December 2024

Relevant Coursework: Algorithms & Data Structures, Computer Architecture, Operating Systems, Software Engineering, Program Design & Development, Advanced Programming Concepts

TECHNICAL SKILLS

Languages: TypeScript/JavaScript (ES6+), Python, SQL

Backend: Node.js, Express, PostgreSQL, Prisma, MongoDB, REST APIs, ETL pipelines

Frontend: React, Next.js, Tailwind, component-based UI

Dev & Infra: Docker, Linux, Git, Postman

AI & LLMs: OpenAI API, prompt engineering, LLM-driven analysis pipelines

Additional Languages: Java, C++, C, C#

Design & Architecture: Domain-driven design, relational data modeling, design patterns

TECHNICAL PROJECTS

Fantasy Sports Platform — Full-Stack Application

TypeScript/JavaScript, Node.js, Express, PostgreSQL, React, Prisma, Next.js, React Native, Redis

Independent Project

November 2025 – Present

Fantasy basketball platform featuring a 16-domain API, multi-provider sports data pipelines, a custom player-evaluation engine, and web and mobile clients.

- Architected a three-layer, domain-driven backend comprising 16 domain modules and a normalized 59-model PostgreSQL schema, supporting leagues, drafts, rosters, matchups, and scoring.
- Engineered a 43-job ingestion system for NBA, WNBA, and NCAA data, incorporating provider-scoped idempotency, distributed locking, retry and backoff policies, gap detection, and 30-second live-game polling.
- Built modular web and mobile clients supporting authentication, league creation and management, drafting, roster management, matchups, and standings.
- Developed a multi-factor player-evaluation engine that scores each player-game using production, efficiency, on/off impact, and matchup difficulty, with results computed nightly from play-by-play and box-score data.
- Implemented the complete lifecycle of a playable fantasy game mode, from draft and schedule generation through lineup locking, automated player allocation, and idempotent settlement; subsequently adapted its scheduling model for season-long competition.

Dev Toolkit — AI-Assisted Developer CLI & Full-Stack Web Demo

Node.js, Express, React, MongoDB, OpenAI API

AI-assisted developer CLI published to npm, with a React web demo and self-hostable Express/MongoDB backend supporting debugging, code explanation, fix generation, scaffolding, and BYOK usage.

- Developed a full-stack developer productivity system that analyzes runtime errors and returns structured explanations and fixes using LLMs.
- Designed a modular Express backend with clean routing, middleware boundaries, and async-safe request handling shared by both CLI and web clients.
- Implemented BYOK (Bring Your Own Key) support, allowing users to securely provide and manage their own OpenAI API keys for cost control and isolation.
- Integrated OpenAI APIs into deterministic analysis pipelines with attention to prompt structure, latency, and reliability.
- Implemented persistent history storage with MongoDB, indexed queries, and retrieval endpoints for past analyses.
- Built a responsive React UI and a CLI client consuming the same API surface, ensuring consistent behavior across interfaces.

Drone Package Delivery Simulation — Program Design & Development Project

C++, Docker, UML, Design Patterns

- Simulated a modular drone delivery system with application of reusable software design patterns.
- Implemented battery management, theft prevention, and Docker-based deployment.
- Collaborated via GitHub, designed UML diagrams, and wrote unit tests to ensure reliability.

ADDITIONAL EXPERIENCE

Cardinal Health — Warehouse Associate

Champlin, MN
2026 – Present

- Utilized warehouse management systems and scanning equipment to track product movement, verify orders, and maintain accurate inventory records throughout the fulfillment process.
- Executed second-shift warehouse workflows—including receiving, inventory movement, order fulfillment, and shipment staging—while maintaining accuracy and meeting operational deadlines.
- Follow documented safety, quality-control, and product-handling procedures while coordinating with team members to resolve discrepancies and maintain continuity across warehouse operations.

All Star Transportation — Delivery Driver

Maple Grove, MN
2023 – 2024

- Managed independent route planning, adapting to day-to-day changes while consistently meeting delivery deadlines.
- Coordinated with dispatch and customers to resolve routing issues, demonstrating strong communication and problem-solving under pressure.

Hy-Vee Grocery Store — Meat Department Team Member

Brooklyn Park, MN
2021 – 2022

- Collaborated with a 6+ person team, coordinating daily tasks and service workflows while improving department efficiency.
- Trained new team members, demonstrating mentorship and leadership.

The Claddagh Irish Pub — Line Cook

Maple Grove, MN
2018 – 2019

- Prepared meals in a high-pressure, fast-paced kitchen environment, maintaining consistent quality and timing.
- Collaborated closely with kitchen staff to coordinate timing and order accuracy under stress.