

Luke Edwards

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EDUCATION

Rochester Institute of Technology (RIT), Rochester, NY

Bachelor of Science, Software Engineering

Dean's List: Spring 2025

Expected Graduation: May 2027

RELEVANT COURSEWORK

Secure Software Engineering, Concurrent & Distributed Systems, Web-Based Software Systems, Web Engineering, Software Testing, Human-Centered Requirements & Design, Software Process & Project Management, Software Subsystems Engineering, Linear Algebra

SKILLS

Languages: TypeScript, JavaScript, Python, Java, C, C++, HTML, CSS **Frontend:** React, Next.js, Angular, Tailwind CSS, Framer Motion, D3.js, JavaFX **Backend:** Node.js, Express.js, FastAPI, Flask, Spring Boot

DevOps: Docker, Git, GitHub Actions, CI/CD, Railway, Supabase, Vercel, Vercel KV (Redis), DNS Management **Desktop:** Electron, Electron Builder **APIs:** Google Sheets API, Google Places API, Spotify API, ESPN API, Nodemailer, Cloudflare Turnstile, Tesseract OCR, MCP

Databases: PostgreSQL, PostGIS, SQLite **Testing:** Jest, JUnit, Pytest **Design:** Figma, UI/UX Design **Other:** Machine Learning, Microservices, Object-Oriented Design, Backtracking Algorithms, Agile Methodologies, Scrum, SEO

WORK EXPERIENCE

Full-Stack Developer Co-op | Autocoach LLC

August 2025 – December 2025

- Developed and launched satispie.com, a marketing website showcasing artisan pie products and distribution partnerships
- Created internal communication tools for customer outreach and built customer contact records system using Google Sheets API, leveraging familiar technology instead of complex database infrastructure
- Developed internal automation tools using Python, Node.js, and Electron, reducing data processing time by 15+ hours per week and eliminating manual email workflows
- Collaborated cross-functionally with sales, maintenance, and accounting teams in a 2-person development team, delivering features aligned with business objectives

PROJECTS

wheredoieat – *Python, FastAPI, Next.js, PostgreSQL, PostGIS, Machine Learning*

2025

- Built full-stack restaurant recommendation application with Content-Based Filtering and Multi-Dimensional Weighted Scoring (cuisine 40%, dietary 25%, price 15%, location 10%, rating 5%, features 5%) and EMA algorithm for preference learning with context-aware scoring multipliers
- Designed scalable architecture processing up to 500 candidate restaurants per request using PostGIS geospatial queries, with batch processing (50-100 restaurants) and asyncpg connection pooling, deployed as microservices on Vercel and Railway
- Implemented gamified Tinder-like interface enabling users to swipe and interact with recommendations while the system learns from preferences in real-time

MetaManager – *Electron, TypeScript, Node.js, React*

2025

- Built cross-platform desktop application for audio metadata and cover art management with resilient batch processing handling partial failures and unified interface supporting multiple formats (MP3, FLAC, WAV) with format-specific library abstraction (node-id3, music-metadata, wavfile)
- Developed IPC communication bridge between React frontend and Node.js backend for secure file operations with custom protocol registration

PDF-y & PDF-y Lite – *Python, FastAPI, Docker, OCR, MCP, Claude AI*

2025

- Developed Model Context Protocol (MCP) server enabling LLMs to analyze PDFs via JSON-RPC 2.0 over stdio, with hybrid text extraction (pdfplumber, PyMuPDF, Tesseract OCR) achieving 99.5% accuracy in 2 seconds
- Built advanced table detection system with distinct strategies for bordered and borderless tables, dual-personality architecture serving both MCP and RESTful HTTP API from unified logic, two variants (full-featured and lightweight) with comprehensive Pytest suites, containerized with Docker, Redis, and Nginx

Medieval Maps – *Figma, UI/UX Design, Wireframing, Prototyping*

2024

- Designed interactive navigation and transportation concept app reimagining medieval travel with modern UX principles, including wireframes, storyboards, and high-fidelity prototypes with routing, danger reporting, and dragon ride ordering
- Collaborated in an agile team to deliver comprehensive design system on time with accessibility-focused menus and rustic visual theme inspired by modern navigation apps

uFund Animal Shelter – *Java, Spring Boot, Angular, TypeScript*

2023

- Built full-stack web application with Spring Boot backend (JSON persistence, DAO pattern) and Angular frontend, implementing digital cupboard system for managers and checkout system for helpers with CRUD operations
- Collaborated in an agile team using Scrum methodologies, following user stories and iterative development to deliver features on time with code quality through static analysis