

Luke Edwards

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EDUCATION

Rochester Institute of Technology (RIT), Rochester, NY

Bachelor of Science, Software Engineering

Expected Graduation: May 2027

Dean's List: Spring 2025

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, Ionos Domain Registrar **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, built customer contact records system using Google Sheets API, and developed automation tools using Python, Node.js, and Electron, reducing data processing time by 15+ hours per week and eliminating manual email workflows
- Closed consulting deal with external client, delivering custom software solution and establishing ongoing technical partnership
- 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*

October 2025 – Present

- 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*

July 2025 – September 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, wavefile)
- 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*

June 2025 – August 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*

January 2025 – May 2025

- 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*

January 2024 – May 2024

- 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