

Simon Lunay

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EDUCATION

The Ohio State University, College of Engineering

Columbus, Ohio

Bachelor of Computer Science and Engineering (AI Specialization), Minor in Mathematics

Expected May 2027

GPA: 3.8

- Dean's List (all semesters), Trustees Scholarship

- Member of Code4Community, AI Club

- Relevant Coursework: Data Structures and Algorithms 1 and 2, Object Oriented Programming 1 and 2 (Java), Computer Architecture, Web Apps (JavaScript), Operating Systems, Discrete Math, Linear Algebra, Engineering Stats

WORK EXPERIENCE

Research Software Engineer

September 2025 - Present

Pease Lab @ Ohio State University

Columbus, Ohio

- Condensing **500M+** datapoint MySQL database into binary string encodings for storage and query efficiency, reducing query execution times by **35-40%** with fellow researchers and engineers
- Reducing page load times by **20%** for end-users by optimizing **PHP** database queries for a **full-stack** web application displaying genomic and georeferenced accession data (**HTML/CSS/JavaScript** frontend)

Software Engineering Intern

May 2024-August 2024, May 2025-August 2025

JCL Equipment Co.

Xenia, Ohio

- Maintained and optimized **SQL** queries, improving data retrieval performance by **30%**
- Developed a **Python** script to manage sales data and automate daily logging of transactions
- Integrated **RESTful APIs** and caching mechanisms, improving system efficiency by **20%** and reducing latency

Certified Trainer

January 2022- August 2023

Chipotle Mexican Grill

Beavercreek, Ohio

- Trained new hires in any position and supplied them with the tools to become successful employees
- Facilitated onboarding and training for 15+ new hires, improving **team productivity** and retention

PROJECTS

FitAI | React, Gemini API, SQL, TensorFlow, JavaScript

October 2025 - December 2025

- Developed a **full-stack** fitness web app with a **React** frontend targeting university-specific workout plans and dietary suggestions, with an expected result of **1.5-2.5 million** students starting in the gym
- Generated **user-personalized** fitness plans through a **TensorFlow.js** body scan analyzing body-pose landmarks, joint angles/alignment, and body proportions/symmetry to estimate user's body metrics with a **5% margin of error**
- Engineered a **health-oriented chatbot** powered by **Gemini's API**, leveraging a **Supabase-hosted PostgreSQL database** to provide tailored responses using **10+** campus-based data tables

JCL Equipment Website | HTML/CSS, JavaScript, Node.js, SQL

May 2025 - June 2025

- Built a full-stack website for a local business to give the company a more professional online presence
- Drove a **40% increase** in customer engagement through a revamped, user-friendly design
- Developed **30+ pages** using **HTML, CSS**, and **JavaScript** frontend with a **Node.js** backend, integrated with a **SQL** database that enables the business owner to update the Used Parts for Sale page independently

AI Stat/Fantasy Predictor | React, AI/Scikit-learn, Express, Python

June 2025 - August 2025

- Built an **AI** stat predictor using **Python** and **Scikit-learn** for machine learning and an **Express backend API**
- Featuring a dynamic **React frontend**, delivering a smooth and interactive user experience with fast searching
- Achieved a **10% margin of error** with the predictor by training a Scikit-learn regression model
- Enabled **20+** fantasy league members to make more informed drafting decisions

SKILLS

Languages | Python, JavaScript, Java, C/C++, SQL, HTML/CSS, Assembly

Frameworks and Tools | React, Node.js, Express.js, GitHub, ML Libraries, VS Code, RESTful API, Scikit-learn, Gemini API