Simon Lunay

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EDUCATION

The Ohio State University, College of Engineering — Columbus, Ohio
B.S in Computer Science and Engineering (AI Specialization), Minor in Mathematics — Expected May 2027
   - Dean's List (all semesters), Trustees Scholarship — GPA: 3.8
   - 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

Lead Developer — November 2025-Present
Columbus/Central Ohio Colleges Agency (CCOCA) — Columbus, Ohio

- **Leading full-stack React, Node.js,** and **SQL** projects for **10+** nonprofit clients
- Delivering responsive, accessible, and high-quality websites by managing a team of 5 developers
- Serving as a primary point of contact and **team director**, ensuring smooth workflow, accountability, and mission-driven impact within a nonprofit organization

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

- Improved data retrieval by **30%** by analyzing, optimizing, and maintaining **SQL** queries
- Automated daily transaction logging by creating a **Python** script, saving **10+** hours of manual work per week
- Integrated **RESTful APIs** and caching mechanisms, improving system efficiency by **20%** and reducing latency

PROJECTS

FitAI | GitHub — *React, Gemini API, SQL, TensorFlow, JavaScript* — October 2025–December 2025
- Developed a **full-stack** web application using **React.js** and **TailwindCSS,** providing university-specific workout/nutrition plans, increasing student engagement with campus gyms by **~30%** during pilot testing
- Accomplished a body scan with a **5% margin of error** by implementing **TensorFlow.js**, analyzing pose landmarks, joint alignment, and body proportions to generate customized fitness routines
- Engineered a **health-oriented chatbot** integrating the **Gemini API**, leveraging a **Supabase-hosted PostgreSQL database** to provide tailored responses using **10+** campus-based data tables

JCL Equipment Website | GitHub — *HTML/CSS, JavaScript, Node.js, SQL* — May 2025–June 2025
- Developed a **30+ page full-stack** website with **HTML, CSS,** and **JavaScript** frontend to give the company a professional online presence
- Drove a **40% increase** in customer engagement through a revamped, user-friendly design
- Enabled the business owner to update the Used Parts for Sale page independently by developing a **Node.js** backend integrated with an **SQL** database

AI Stat/Fantasy Predictor | GitHub — *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
- Delivered a smooth and interactive user experience with fast searching through a dynamic **React frontend**
- Achieved a **10% margin of error** with the predictor by training a Scikit-learn regression model

SKILLS

Languages | Python, JavaScript, Java, C/C++, C#, SQL, HTML/CSS, Assembly
Frameworks, Databases & Cloud | React, Node.js, Express.js, Next.js, GitHub, VS Code, RESTful API, AWS, PostgreSQL
ML/AI & Data Tools | TensorFlow.js, Scikit-learn, Gemini API, PyTorch, OpenCV, Pandas