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

- Improving digital outreach and accessibility across Central Ohio through leading **full-stack React, Node.js,** and **SQL** projects for **10+** nonprofit clients
- Driving delivery of responsive and accessible web platforms by directing a **5-member** development team
- Streamlining workflows and ensuring projects align with each nonprofit's mission and impact goals by acting as primary liaison between clients and developers

Research Software Engineer — September 2025-Present
Pease Lab | The Ohio State University — Columbus, Ohio

- Optimizing query times by **35-40%** by condensing a **500M+** datapoint **MySQL** database into binary string encodings, enhancing storage and retrieval efficiency in collaboration with 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

- Boosted database efficiency by **30%** by profiling and refactoring **SQL** queries for faster data retrieval
- Saved **10+ hours per week** through a custom **Python** script that automated manual transaction logging
- Integrated **RESTful APIs** and caching, 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
- Implemented a 3D body scan tool with **5% margin of error** using **TensorFlow.js** pose detection and body proportion analysis
- 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
- Constructed a **30+ page full-stack** website with **HTML, CSS,** and **JavaScript** frontend to give the company a professional online presence and boost online engagement by **40%**
- Devised a self-service content management tool enabling non-technical staff to update site inventory via a **Node.js** + **SQL** backend

AI Stat/Fantasy Predictor | GitHub — *React, AI/Scikit-learn, Express, Python, Pandas* — June 2025–August 2025
- Formulated a machine learning platform using **Python**, **Pandas**, and **Scikit-learn** to forecast NFL and NBA player stats, achieving **~10%** prediction error across large datasets
- Enabled real-time fantasy analytics through an **Express API** and interactive **React** dashboard, allowing users to make data-driven lineup and trade decisions instantly

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