

# Liam Swayne

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## Education

Carnegie Mellon University (current) - B.S. in Computer Science	2024 - Present
The Ohio State University (dual enrollment) - Coursework in Computer Science & Data Analytics	2022 - 2024
Columbus State Community College (dual enrollment) - Coursework in Science	2020 - 2024

## Professional Experience

AI Model Trainer -  DataAnnotation	June 2025 - Present	<p><b>Creator of ChronoClientDB</b> Temporal, client-side database bit-packed and encoded as a single string. <a href="https://chronoclientdb.org">https://chronoclientdb.org</a> ↗</p>
AI Model Trainer -  Handshake	October 2025 - November 2025	
<ul style="list-style-type: none"><li>Created problem-solution pairings and complex challenges for the development of machine learning models</li><li>Solved and graded quantitative and abstract reasoning problems</li></ul>		
<ul style="list-style-type: none"><li>Delivered high-quality human feedback data to improve model alignment and safety</li><li>Executed on deliverables under an accelerated project timeline</li></ul>		
AP Computer Science Tutor -  Bay Coding Club	June 2025 - August 2025	
<ul style="list-style-type: none"><li>Taught Java programming concepts to AP Computer Science students</li><li>Developed new curriculum to enhance student learning outcomes</li><li>Communicated with parents and students to ensure that progress exceeded expectations</li></ul>		
AI Model Trainer -  Remote Control Enterprises	May 2025 - August 2025	
<ul style="list-style-type: none"><li>Utilized SRT evaluation to aid development of machine learning models</li><li>Managed timekeeping and project documentation, achieving leading output within a 10-person team</li><li>Consistently delivered high-quality work, adapting to changing team availability and company needs</li></ul>		
Backend Cloud Developer Intern -  Beunec	May 2025 - June 2025	
<ul style="list-style-type: none"><li>Integrated backend systems with a front-end React UI</li><li>Utilized databases, object storage, and memory-safe server-less compute</li><li>Worked with React.js, Node.js, Cloudflare, and SQLite databases</li></ul>		
Software Development and Marketing Intern -  MMG Design	June 2024 - August 2024	
<ul style="list-style-type: none"><li>Developed reusable and dynamic web components for client projects</li><li>Collaborated directly with clients to implement complex content management and AI-driven automations</li></ul>		

## Skills

- JavaScript, Python, C, Java
- Full-stack web-app development
- Machine learning with PyTorch
- Cloudflare (frontend and backend)
- AWS (frontend and backend)
- Git & [GitHub](#) ↗
- GitHub Actions and CI/CD
- AI automation
- Technical communication
- Compression and bit-packing techniques
- Google Workspace/Microsoft Office Suite
- Artificial intelligence APIs
- Database management (SQLite, D1, NoSQL)
- Transactions with Stripe API
- Project management
- LaTeX & Markdown
- [Teaching](#) ↗
- Automated web scraping and data analytics
- Data-oriented design

# Technical Projects

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## Recursive Novel Generation with Python and AI ([Featured in IGN ↗](#))

- Developed Python scripts recursively expanding an outline to a book with calls to AI
- Demonstrated AI's capabilities in long-form narrative generation and complex context management

## EduAuth ↗ - Multi-factor Authentication Service

- Engineered a security-critical application leveraging AWS Lambda, DynamoDB, and IAM security policies
- Implemented multiple authentication methods including SMS, email, and authenticator app integration
- Created a customizable interface that adapts to client branding

## Carbon Neutrality Calculator

- Engineered a system for optimizing carbon neutrality costs using discrete linear programming
- Implemented modular design principles for enhanced scalability and maintenance
- Developed comprehensive documentation and usage guidelines for future maintainers

## ReadEase ↗ - Affordable Dyslexia Reader

- Developed a simple, accessible dyslexia reading aid that can be created with just two sheets of paper
- Designed and implemented a modern landing page with smooth animations and responsive design
- Integrated Cloudflare Workers for download tracking and serverless functionality

## FIRST Tech Challenge Engineering & Programming

- Applied programming skills to control robots in competitive driving challenges
- Collaborated with a team to design, build, and program a robot using languages such as Java or C++
- Utilized problem-solving skills and hands-on engineering to overcome technical challenges and optimize robot performance
- Engaged in in-person collaborative work, fostering teamwork and communication skills
- Utilized 3D printing to create custom parts for the robot

## Digital Selling Toolchain

- Architected and implemented a comprehensive full-stack web application (25,000+ lines of code)
- Designed and managed complex SQLite database systems
- Implemented robust error handling and data validation mechanisms

## Autonomous Web Archival Scripting and Virtual Machine Deployment

- Developed automated scripts to preserve at-risk web content through the Internet Archive API
- Implemented reliable GitHub Actions workflows for continuous monitoring and archival
- Created dozens of autonomous archives using bash scripting for efficient web preservation

# Volunteer Experience

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## Volunteer Teaching Assistant - Daily Needs Assistance

August 2022 - May 2023

- Facilitated English language learning for immigrant students and parents in Dublin's neighboring districts
- Conducted small-group learning activities and provided individualized support
- Developed and adapted teaching materials for various age groups to maximize engagement

## Project Lead - AMBER Alert Enhancement Initiative

September 2021 - March 2022

- Developed a prototype system integrating AMBER Alert messages with vehicle imagery
- Coordinated with industry professionals to evaluate and improve system effectiveness
- Created and presented comprehensive documentation for stakeholder review