

# Aaron Lewis

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## EDUCATION

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**University of Notre Dame** | Notre Dame, Indiana Graduation May 2026  
*Bachelor of Science in Computer Science, Minor in Engineering Corporate Practice* GPA: 3.97  
Dean's List

**University of Notre Dame** | London, England May – June 2023  
*Engineering Summer Study Abroad*

## WORK EXPERIENCE

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**University of Notre Dame** | Notre Dame, Indiana September 2024 – Present  
*Teaching Assistant – Introduction to Computing, Logic Design and Sequential Circuits*

- Assisted students in understanding fundamental computer science and C/C++ concepts in weekly office hours
- Graded and provided feedback on weekly assignments, ensuring clarity and understanding of course material

**Amazon.com, Inc.** | Bellevue, Washington May – August 2025  
*Software Development Engineering Intern*

- Boosted scalability of a key customer-facing service, enabling onboarding of hundreds of new use cases
- Designed and ran an A/B test routing live traffic between legacy and new systems, validating billions of requests
- Contributed to an internal AWS tool that improved cross-team collaboration by streamlining data flow

**GoodLife Fitness** | Remote June – August 2024  
*Freelance Developer*

- Configured Microsoft Azure's Spatial Analysis Container to track equipment usage in live gym video feeds
- Created Azure resource structure to utilize virtual machines as edge devices performing model computations
- Presented findings to C-suite leadership at GoodLife Fitness, advising on project viability and next steps

## COURSEWORK

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**B-Minor Language Compiler** | C, Flex, Bison August – December 2025

- Engineered an ahead-of-time compiler for the B-Minor language from scratch, correctly executing test programs
- Resolved language issues in a series of convention committees, voting on permitted syntax and intended semantics

**Facial Recognition Analysis** | Python (PyTorch) August – December 2024

- Developed and evaluated three fine-tuning methods for facial recognition models, refining open-set pipeline accuracy
- Partnered with the University of Notre Dame CVRL for data, also performing manual collection by taking pictures

**Process Scheduler, Malloc, Filesystem, Chat Program** | C August – December 2024

- Implemented OS-level functionalities, including a process scheduler, a heap memory allocator, and a filesystem
- Built a multithreaded chat program using POSIX threads, showcasing expertise in thread synchronization

## EXTRACURRICULAR ACTIVITIES

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**Notre Dame Bengal Bouts** | Notre Dame, Indiana October 2025 – Present

- Competed in a boxing club that raises hundreds of thousands annually for Holy Cross Missions in Bangladesh

**Notre Dame Video Game Development Club Vice President** | Notre Dame, Indiana August 2024 – August 2025

- Organized and led weekly meetings, delivering technical instruction tailored to each club member

**Notre Dame Men's Rowing** | Notre Dame, Indiana August 2022 – February 2023

- Improved time management by balancing practice schedules averaging sixteen hours a week with regular coursework

## COURSES

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Data Structures, Design and Analysis of Algorithms, Systems Programming, Operating Systems, Computer Architecture, Introduction to Artificial Intelligence, Machine Learning for Engineers, Computer Vision, Computer Security, Compilers and Language Design, Advanced Topics: Integrated Engineering and Business, Ethical and Professional Issues

## TECHNICAL SKILLS

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Python, C, C++, Java, Ruby, Flex, Bison, Git, Linux, RISC-V