

Nathan Johnson

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Education

Loyola University of Chicago

B.S. Computer Science

GPA: 3.94

Relevant Coursework: Data structures and Algorithms, Discrete Math, Calculus I & II, Linear Algebra, Computer Systems, Programming languages.

Future Coursework: Operating Systems, Object-Oriented Design, Database Programming, NLP, Machine Learning

Chicago, IL

Expected Graduation: May 2026

Experience

Argonne National Laboratory

Computational Research Aide / Sophomore

Lemont, IL

May 2024 – August 2024

- Contributed to the ARCHES project under the CPS division, focusing on GPU offloading with SYCL to optimize performance on the Aurora supercomputer.
- Analyzed code performance using MAQAO and implemented targeted optimizations for computational kernels, reducing execution time and improving scalability.
- Employed OpenMP to parallelize workloads, demonstrating proficiency in concurrency and performance tuning.

Computational Research Aide

May 2023 – August 2023

- Developed Python-based HPC workflows for the CPS division, integrating C/C++ libraries through ctypes and pybind11.
- Performed benchmarking using cProfile and optimized parallel computation via mpi4py, resulting in improved performance of data-intensive tasks.
- Gained hands-on experience in cross-language performance optimization and parallel programming in distributed computing environments.

TrueLayer

Business Development Intern

London, UK

January 2025 – Present

- Acquired experience in a fast-paced FinTech environment; performed data analysis and outreach within the Commercial division.
- Conducted research on potential strategic partnerships, developing analytical and communication skills beneficial for cross-functional software development projects.

Loyola University of Chicago

Loyola AI Club President

Chicago, IL

August 2023 – December 2024

- Led a project building a machine learning system to recommend similar movies based on user viewing history using Pandas, NumPy, and Scikit-learn.
- Organized weekly meetings and competitions, growing membership from 5 to 25 regular attendees.
- Oversaw logistical planning for guest speaker events, demonstrating leadership, team collaboration, and project management skills.

Skills

- **Programming Languages & Tools:** Python, C++, Java, Scala, Ruby, Git, PyBind11, cProfile, Pandas.
- **Software Development:** Object-Oriented Programming, Data Structures & Algorithms, Complexity Analysis, Unit Testing