Nathan Johnson

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Education

Loyola University of Chicago Chicago, Illinois
B.S. Computer Science Expected Graduation: May 2026

GPA: 3.94

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

Experience

Argonne National Laboratory Lemont, IL
Computational Research Aide | Sophomore May 2024 – August 2024

- Returned under Anouar Benali in the CPS division, contributing to the ARCHES (Argonne Configuration Interaction for High-Performance Exascale Systems) code.
- Focused on GPU offloading using SYCL for the Aurora supercomputer and performed code profiling with MAQAO.
- Applied optimizations using OpenMP threading and engaged in high-performance computing tasks.

Computational Research Aide May 2023 – August 2023

- Assisted in the CPS division with Python-based HPC (High-Performance Computing) projects.
- Utilized cProfile for benchmarking, mpi4py for parallel computing, and worked on binding C/C++ with Python using ctypes and pybind11.

Loyola University of Chicago Chicago, IL
Loyola AI Club President August 2023 – Present

- Upon becoming President for the club, I quickly redesigned the club to include more projects, workshops, and collaborations.
- Facilitated a project that would recommend similar movies based on user movie data. Used tools such as Pandas, NumPy, Scikit-learn, Pickle.
- Organized weekly meetings, competitions, and guest speaker events to engage members and expand the club's presence. Taking weekly attendance from around 5 to 25.

Computer Science tutor January 2024 – Present

- Weekly tutor in the Computer Science Department tutoring all Computer Science students.
- I Tutor classes such as Introduction to Computing Tools and Techniques, Discrete Structures, Introduction to Object-Oriented Programming, Computer Systems, and Data Structures I and II.

Skills

Languages/Tools: Python, Java, C++, Rust, Ruby, Scala, SYCL, OpenMP, MAQAO, Linux, mpi4py, ctypes