Nathan Johnson

Chicago, Illinois | njohnson14@luc.edu | 331-229-1644 | GitHub | LinkedIn

Education

Loyola University of Chicago Chicago, IL
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.
Future Coursework: Operating Systems, Object Oriented Design, Database Programming, NLP, ML.

Experience

TrueLayer
London, UK
Business Development Intern January 2025 – Present

- Acquired hands-on experience in the dynamic, fast-paced FinTech industry, TrueLayer is the leading European provider for Pay by Bank, Open banking, and A2A
- Conducted data analysis and outreach within the Commercial division to identify and evaluate potential strategic partnership opportunities.

Loyola University of Chicago
Chicago, IL
Loyola AI Club President August 2023 – December 2024

- Facilitated a project that would recommend similar movies based on user movie data. Used tools such as Pandas, NumPy, and Scikit-learn.
- 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 while presenting weekly.

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

- Contributed to the ARCHES (Argonne Configuration Interaction for High-Performance Exascale Systems) project under the CPS division.
- Specialized in GPU offloading using SYCL for the Aurora supercomputer, focusing on performance-critical applications.
- Performed code profiling and bottleneck analysis using MAQAO, identifying and implementing optimizations for computational kernels.
- Applied OpenMP threading to parallelize workloads effectively, enhancing the scalability and efficiency of the codebase gaining extensive experience in high-performance computing (HPC).

Computational Research Aide May 2023 – August 2023

- Assisted in the developing Python-based HPC workflows for the CPS division.
- Conducted benchmarking using cProfile and optimized parallel computation with mpi4py.
- Integrated C/C++ libraries into Python workflows using ctypes and pybind11, streamlining performance-critical operations.
- Enhanced understanding of cross-language performance optimization and parallel programming

Skills

- **Programming Languages:** Python, C++, Java, Scala, Ruby.
- **HPC and GPU Computing:** OpenMP, SYCL, MAQAO, mpi4py.