Nathan Johnson

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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

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

- Contributed to performance-critical HPC applications (ARCHES project) by offloading GPU computations with SYCL.
- Optimized parallel workloads using OpenMP, improving code scalability and efficiency across large clusters.
- Conducted profiling (MAQAO) to identify bottlenecks and successfully implemented multi-threaded optimizations.

Computational Research Aide May 2023 – August 2023

- Developed Python-based HPC workflows and integrated C/C++ libraries for performance-critical modules.
- Employed cProfile and mpi4py for benchmarking and parallel computing, enhancing performance across distributed systems.

TrueLayer
London, UK
Business Development Intern January 2025 – Present

- Gained hands-on experience at a leading FinTech provider of Pay by Bank, Open Banking, and A2A solutions.
- Analyzed data and identified strategic commercial opportunities to grow partnerships in a fast-paced startup environment.
- Collaborated cross-functionally with technical and non-technical teams, reinforcing communication and problem-solving skills.

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

- Led a machine-learning movie-recommendation project utilizing Pandas, NumPy, and Scikit-learn.
- Organized and presented weekly meetings, competitions, and guest speaker events to expand club engagement.
- Demonstrated leadership and communication skills while growing the club's active membership base.

Skills

- **Programming Languages:** Python, C++, Java, Scala, Ruby, Go
- **Parallel & HPC:** OpenMP, SYCL, mpi4py, MAQAO
- **Tools & Libraries:** Pandas, NumPy, Scikit-learn, pybind11
- **Other Skills:** Cross-language performance optimization, Data Analysis, Leadership & Collaboration