

Primary

# John White

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## Experience

### High-Performance Computing Intern, NIU CRCO – Dekalb, IL Jan 2025 – Present

- Leading development of a COSYScript → Rust transpiler, enabling researchers to run legacy COSY programs on modern HPC clusters with the safety and performance benefits of Rust
- Built the HSLAB Batch Monitor for Metis Supercomputer, allowing users to list, track, and monitor PBS Professional batch jobs in real time: [HSLAB Batch Monitor](#)
- Authored comprehensive, beginner-friendly documentation for the Metis Supercomputer, helping NIU students and faculty jumpstart their research: [Metis Documentation](#)

### Researcher, NIU AI-LEADS – Dekalb, IL Jan 2024 – Present

- Designed and deployed a secure, high-performance backend for the iGAIT Autism Screener using Rust + Axum, enabling clinical data collection and analysis: [iGAIT In Action](#), [Repository](#)
- Interfaced the iGAIT backend with the Metis cluster to deploy our advanced computer vision model, increasing inference accuracy and speed. This also contributed to the OpenPose ecosystem, helping fellow researchers deploy OpenPose: [Repository](#)

## Skills

**Languages:** Rust, C++, Python, NodeJS, Go, SQL and SQLite

**Technology:** Kubernetes, RHEL, NixOS, Docker, Git, AWS, Linux, Tauri, Svelte

**Concepts:** Risk Management, Troubleshooting Process, Mathematical Modeling

## Projects

### r6econ - ★ 53 [github.com/hiibolt/r6econ](https://github.com/hiibolt/r6econ)

- Long-term market analysis tool for Ubisoft's marketplace, storing and analyzing pricing data to support strategic purchases and trades
- Provides a friendly Discord-based frontend interface with numerous visualization and prediction commands for real-time decision support

### nixos - ★ 11 [github.com/hiibolt/nixos](https://github.com/hiibolt/nixos)

- Collection of advanced NixOS configurations demonstrating concepts such as High Availability (HA), Impermanence, RAID, and graphical customization

### rosy - ★ 6 [github.com/hiibolt/rosy](https://github.com/hiibolt/rosy)

- Modern Rust-based transpiler for the ROSY scientific programming language, based on COSY INFINITY - originally designed for beam physics and distributed numerical computation
- Converts ROSY source into MPI-executable Rust code through a complete multi-crate toolchain featuring a runtime library, IDE tooling, and robust static type analysis for HPC workflows

## Education

### Northern Illinois University Present

- GPA: 3.9/4.0, Anticipated Graduation: May 2027
- Bachelor of Science - Computer Science Computational Software Emphasis
- Bachelor of Science - Mathematics Computational Mathematics Emphasis

### Batavia High School May 2023

GPA: 3.8/4.0