

# Daniel Johnson

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## EDUCATION

### University of Kansas (KU)

*Master of Science in Computer Science*

Lawrence, Kansas

*Expected May 2024*

- GPA: **4.00/4.00** | Focus: Machine Learning & High Performance Computing

*Bachelor of Science in Computer Science*

*May 2022*

- GPA: **3.74/4.00** | Upsilon Pi Epsilon Honors Society (Top 30% of Class) | Niehaus Award for Best Capstone

**Relevant Coursework:** Machine Learning (3 courses), Software Engineering (3 courses), Data Structures and Algorithms (3 courses), Programming Languages (3 courses), Data Science (2 courses), Database Systems, Applied Statistics, Linear Algebra

## WORK EXPERIENCE

### Graduate Intern (CCS-7)

*Los Alamos National Laboratory*

May 2023 – Present

*Los Alamos, NM & Remote*

- Improve Continuous Integration (CI) pipelines for the automated building and testing of multi-physics simulations
- Contribute design and development to the open-source LANL Data Science Infrastructure (DSI) project
- Gear innovations in project work towards the goal of publishing papers in top venues

### Graduate Teaching Assistant (GTA)

*University of Kansas School of Engineering*

August 2022 – Present

*Lawrence, KS*

- Give lectures on Pandas and Deep Learning for EECS 835: Advanced Data Science (Fall 2023)
- Direct lab sections and grade assignments for 40+ students in EECS 268: Programming 2 (Fall 2022, Spring 2023)
- Was awarded the Paul F. Huebner Memorial Award for excellence in teaching

### Software Development Intern

*Paycom*

May 2022 – August 2022

*Oklahoma City, OK*

- Worked with a team to develop an internal tool that parses documentation from 90,000+ source files and uploads formatted documentation to an internal site using a REST API
- Wrote unit and integration tests to systematically verify implementation correctness achieving 100% test coverage
- Presented the project to the CIO and other development management to show usage and monetary value

## LEADERSHIP EXPERIENCE

### Vice President and Co-Founder

*KU Artificial Intelligence Organization*

February 2021 – Present

*Lawrence, KS*

- Manage and work on team-oriented projects using applied artificial intelligence, run weekly meetings, help with organization funding and campus relations, and present informative workshops on the fields of AI and ML

## PROJECTS

### MatProp | *Python*

Spring 2023

- Compact backpropagation engine and neural network framework that provides a PyTorch-like interface for defining and training neural networks using autograd-supported matrix operations
- Thoroughly tested against PyTorch to ensure that its calculations of values and gradients are correct

### MOBIUS | *Python*

Spring 2022

- Full data pipeline for training machine learning models to classify user keystrokes based on gyroscope and accelerometer sensor data on an Android device, presented with an eight page research paper
- Employs asynchronous polling of sensors, data processing with NumPy and Pandas, and uses a Tensorflow RNN model

## TECHNICAL SKILLS

**Languages/Tools:** Python, C++, Go, Rust, C, JavaScript, C#, Haskell, SQL, Bash, Git, Gitlab CI/CD, Docker, Jupyter

**Libraries/Frameworks:** NumPy, Pandas, Tensorflow, PyTorch, CUDA, Scikit-Learn, Matplotlib