

Daniel Rammer

Software Engineer
Union AI

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Education

Colorado State University Fort Collins, CO

Ph.D. in Computer Science Fall 2021

- *CS Graduate Fellowship*: awarded as the departments top graduate student for the '20 - '21 academic year.

M.S. in Computer Science, GPA: 3.87 / 4.0 Spring 2018

University of Wisconsin - Oshkosh Oshkosh, WI

B.S. in Computer Science, Major GPA: 3.6 / 4.0 Spring 2013

- *NCAA Track & Field Academic All-American*: National Championship competitor with academic excellence.

Experience

Union AI Seattle, WA

Software Engineer - Distributed Systems / Backend August 2021 - Present

- Backend development to improve performance and increase functionality of [[Flyte](#)], a kubernetes-based workflow automation framework

Colorado State University Fort Collins, CO

Graduate Research Assistant - Distributed Systems August 2017 - August 2021

- Architected extensions to HDFS and Apache Spark which improve spatiotemporal bounded analytics performance by up to 4x and reduce disk and network I/O by 3 orders of magnitude. [[NahFS](#)] [[NahSpark](#)]
- Implemented distributed satellite imagery storage framework to reduce spatial deep learning training durations by up to 13.3x by improving CPU / GPU utilization and reducing network I/O by several orders of magnitude. [[STIP](#)]
- Developed an HDFS-compliant distributed file system which leverages lossy compression to provide near in-memory analytics speeds (up to 500x faster than on-disk HDFS) over large, spatiotemporal datasets. [[Anamnesis](#)]

Graduate Research Assistant - Network Security May 2015 - August 2017

- Created, deployed, and managed a global-scale, cloud-based (i.e., Azure, AWS, Google Cloud) application service monitoring framework to detect Internet outages and identify the cause. [[Proddle](#)]
- Contributed to distributed capture and storage of global-scale BGP routing messages used to detect prefix hijacks and Internet-scale routing anomalies. [[BGPmon](#)]

VersiFit Technologies Appleton, WI

Software Engineer - ETL (Extract, Transform, and Load) for Data Warehouse August 2012 - May 2015

- Developed a dynamic, pipeline-based ETL suite and student ID matching tool which were deployed at 50+ education-oriented data warehouses nation wide.

Technical Skills

Languages: Java, Go, Rust, Python, Bash

Analytic Frameworks: Hadoop, Spark

Storage Solutions: HDFS, Cassandra, MongoDB

Cloud Infrastructure: Kubernetes, Envoy, Docker