**State of Wisconsin Mainframe Summer Internship**

The mainframe environment hosts some of the most critical applications for the State of Wisconsin. Some of these vital applications include Kids Information Data System (KIDS) which administers child support, Client Assistance for Reemployment and Economic Support (CARES) which administers welfare to work programs, and the Department of Transportation’s Registration and Titling for the state’s drivers licensing and automobile registration.

These applications require a highly available platform capable of processing large amounts of data with sub-second response times. The mainframe runs over a half million batch jobs monthly, processes over 140 million transactions monthly, processes nearly one billion SQL database calls daily, creates 3,900 new reports stored using the electronic report distribution system daily, and stores on average five million new documents a month in its content management system.

**Internship Highlights**

* Program is 40 hrs per week, spanning twelve weeks during the summer
* Work setting is 90% remote with on-site days occurring at our office in Madison
* Training includes the following:
	+ Overview of the mainframe hardware components including topics like virtualization, memory management, workload management, and performance measurement and analysis
	+ Overview of the mainframe software components including traditional mainframe system components like CICS, Db2, IMS, and DFSMS
	+ Use of traditional mainframe components and utilities such as JCL, TSO, SDSF, and the REXX programming language
	+ Use of modern mainframe technologies, potentially including but not limited to Python, Node.js, OpenShift, GitHub, Markdown, and modern IDEs
* Internship includes a full-summer project, providing the following additional opportunities:
	+ Learning how to create/manage a project plan and presenting on weekly progress
	+ Researching a mainframe topic and presenting to senior management
	+ Developing applications or processes that will be used to improve the reliability and/or usability of systems used within the State of Wisconsin for years to come
* Projects from previous summers include:
	+ Extending mainframe automated testing tools by developing a backend Flask API in Python
	+ Enhancing Python-based mainframe automated testing tools and developing production test suites to use the newly developed enhancements
	+ Analyzing mainframe billing data and implementing a Node.js web frontend to view results
	+ Working with data from the mainframe source code management system to help identify usage and configuration patterns
	+ Developing processes to collect and analyze mainframe usage data to determine mainframe access trends across the State of Wisconsin

**Application Process**

Applications can be submitted by sending an email along with an attached cover letter and resume to DOADETPolicyOffice@wisconsin.gov. *All applications must be received by* ***October 31, 2024****.*

For more information about the State of Wisconsin mainframe internship, please contact Matt Rennebohm (matthew.rennebohm@wisconsin.gov, 608-224-3814).