

# Mitchell Alley

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## WORK EXPERIENCE

**JLG Industries - Subsidiary of Oshkosh Defense - Software Engineer** Jun 2022-Present

- Primary software development project lead at the JLG Shippensburg plant. Responsible for optimizing production processes, code reviews, debugging, and source control via Git.
- Led the development and implementation of Mobile Quality Control (MQC) and Mobile MES applications, identifying system requirements and plant dependencies. Oversaw documentation, software deployment, testing, and CI/CD pipelines. Designed performance dashboards to monitor key metrics and ensure continuous improvement.
- Created and deployed a PyTorch model to classify defective parts on subassembly lines.
- Excelled at rapid application development, improvements, and management of technological issues throughout JLG plants. Generated over \$500,000 in savings on subcontracts.
- Software architect, responsible for the development and expansion of the Manufacturing Execution System (MES), facilitating company-wide visibility to tracking raw materials to finished goods.
- Used and developed REST APIs via JSON data to generate reports from raw subassembly line data.
- Lead developer for tracking material across manufacturing facilities. Wrote selenium test cases, constructed NoSQL databases, and integrated the front-end and back-end using Python, Java, and Vue.js, covering the entire software development lifecycle. Generated \$1,300,000 in annual savings.

**Polaris - Data Analytics Intern** May-Aug 2021

- Implemented Power BI dashboards, showcasing costs of Snowflake and Alteryx usage across Polaris facilities.
- Spearheaded the vendor search to enhance knowledge management in the Insights Library SharePoint site.
- Used SQL to clean Polaris safety claim data to facilitate increased efficiency in response time.

**University of Wisconsin - Madison - Data Analytics Intern** May-Jun 2020

- Selected from a competitive pool of students to independently research and present on the effect of COVID-19 on crime rates in New York City and the potential economic consequences.
- Forecasted economic outcomes in NYC, leveraging Python libraries including Pandas, Matplotlib, and XGBoost.

**UW Parkside App Factory - Software Engineer Intern** Jun-Aug 2018

- Created mobile apps in Swift using Xcode for community clients throughout southeastern Wisconsin.
- Collaborated with students and faculty to create apps in a startup environment, gaining real-world experience working with clients on live projects.

## EDUCATION

**University of Texas at Austin** Jan 2024 - Present

- Master's in Artificial Intelligence. GPA: 3.8/4.0
- Relevant courses: Advances in Deep Learning, Deep Learning, AI in Healthcare, Natural Language Processing, Optimization, Ethics, Case Studies in ML

**University of Wisconsin-Madison, Madison, WI** Sep 2018 - May 2022

- Bachelor of Science degrees in Computer Science and Economics with Math Emphasis.
- Former student-athlete on the UW-Madison Cheerleading team and UW-Madison Men's Rowing team with a schedule practice/event schedule of 25+ hours per week.

## SKILLS

**Languages:** Python, Java, JavaScript, SQL, C, Powershell, Swift, CSS, HTML

**Processes:** Git, CI/CD, Agile, Scrum, Jira, Confluence, REST, Waterfall, DevOps, AWS EC2

**Testing:** Puppeteer, Selenium, JUnit, JMeter, Test Driven Development (TDD), Postman, Unit Testing

**Other:** RESTful APIs, JSON, Linux, Azure Services, Power BI, Node.js, Vue.js, Swagger, PyTorch, NumPy, Pandas, Scikit-learn