

# James Tyler LoVerde

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## EDUCATION

### University of Wisconsin-Madison

Madison, WI

Bachelor of Science in Computer Science and Data Science

Sept. 2021 - May 2025

GPA: 3.72/4.00

**Relevant Coursework:** Algorithms, Python I and II, Java II and III, Statistical Modeling I and II, Machine Organization (C), Artificial Neural Networks and Deep Learning, Artificial Intelligence, Big Data (Spark), Databases, Operating Systems

## EXPERIENCE

### Grainger

Chicago, IL

Software Engineer Intern

June 2024 - Present

- Innovated a tool using **Terraform** that allowed internal teams to follow a process to migrate their databases cross region with zero to minimal downtime through AWS Databases Migration Service
- Developed a tool utilizing Python CDK for teams that automated the process of creating **Aurora Postgres** databases in the AWS cloud optimizing database provisioning and managing processes
- Coded in **Python** a slack bot for the onboarding process for employees resulting in a 50% reduction in onboarding time

### Fenster Analytics

Madison, WI

Software Engineer Intern

March 2023 - May 2023

- Facilitated the transfer of deployment services from **Docker** to **Fly** on their **Python** codebase to optimize development and lower cost leading to a reduction in hosting services cost by 20% on the company's product
- Contributed to the enhancement of the product's analytics dashboard by designing and implementing new features using **React** and **HTML/CSS** on the frontend, allowing the product to be presented aesthetically to potential investors
- Integrated a **CI/CD** pipeline through GitHub actions ensuring smooth development of the company's product

### CNH Industrial Capital

Racine, WI

Data Analytics Intern

May 2023 - Aug. 2023

- Aggregated, cleaned, and manipulated large datasets with millions of essential data entries using **SQL** scripts in order to gain insights of financial data that led to strategic adjustments creating an increase of 5% in profits in certain sectors
- Implemented **SQL** scripts to automate monthly reporting system that was standardized across all North American teams

## PROJECTS

### Cutta, Full Stack App | React Native, Node.js, PostgreSQL

March 2024 - Present

- Created the first app to perform March Madness Cuttata auctions, a type of auction where participants bid on NCAA basketball teams and users win based on team's performance, using **Node.js**, **React Native**, and **Postgres**
- Implemented backend services with Node.js and Postgres for user authentication, data management, and auction logic

### Artificial Neural Networks NFL Article | Python, Tensorflow, Sklearn ([Article Link](#))

May 2024

- Developed an **RNN (LSTM)** to predict NFL offensive plays (run, pass, field goal, punt) achieving a 73% accuracy
- Conducted data preprocessing and analysis to handle over 350 variables and 900,000 rows to train the model effectively
- Authored an article to showcase the practical applications of **machine learning** in sports analytics

### JPMorgan Chase Hackathon (1st Place) | Python, Sklearn, Pandas

Oct. 2023

- Coded an **optimization** model to identify optimal ZIP code pairings between cities by clustering into two groups with **KMeans**, calculating Haversine distances between the clusters, and scoring the pairs using L2 and distance metrics.
- Accumulated, manipulated, and merged vast data sources to find statistical evidence to support our solution

## SKILLS

**Languages:** Java, Python, JavaScript, R, SQL, HTML/CSS, C, TypeScript, Terraform

**Frameworks and Tools:** React, Node.js, MongoDB, AWS, Postgres, Git, Docker, Linux, Kubernetes, TensorFlow, Fly, Express