James LoVerde

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EDUCATION

University of Wisconsin-Madison — Madison, WI

Bachelor of Science, GPA: 3.72 — *September 2021 – May 2025*

Majors: Computer Science, Data Science

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

EXPERIENCE

Software Engineer Intern — June 2024 – August 2024

Grainger — *Chicago, IL*

- Innovated a tool using **Terraform** that allowed internal teams to migrate their databases cross region, cross account with zero downtime through **AWS Databases Migration Service** that was standardized across all teams
- Developed a tool in Python for teams that automated the process of creating **Aurora Postgres** databases in **AWS** cloud, optimizing database provisioning and managing processes
- Created a **DataDog** analytics tool to track various metrics related to databases in the AWS cloud to track costs
- Coded a **Python** slack bot for onboarding employees resulting in a 50% reduction in onboarding time for the team

Software Engineer Intern — March 2023 – May 2023

Fenster Analytics — *Madison, WI*

- 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 investors
- Integrated a **CI/CD** pipeline through GitHub actions ensuring smooth development of the company's product

Data Analytics Intern — May 2023 - Aug. 2023

CNH Industrial Capital — *Racine, WI*

- Aggregated, cleaned, and manipulated large datasets with millions of 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 that was standardized across all North American teams

PROJECTS

Cutta, Full Stack App | *TypeScript, Node.js, React Native, PostgreSQL* — April 2024 – Present

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

NFL AI Play Calling Predictor | *Python, TensorFlow* — April 2024 – 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 1,000,000 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* — Oct. 2023

- Coded an optimization model in Python's **Sklearn** library to identify optimal ZIP code pairings between cities by clustering into two groups with KMeans and ranking the top 40 pairs using L2 and Haversine distance metrics
- Accumulated and manipulated vast data sources in Python to find statistical evidence to support our solution

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, R, SQL, HTML/CSS, C, TypeScript, HCL, Bash
Frameworks and Libraries: React, Node.js, AWS, Git, TensorFlow, NumPy, Sklearn, Keras
Developer Tools: Git, Docker, Linux, Kubernetes, Postman, DataDog, Fly, PostgreSQL, MongoDB
Experience With: Networking, Full Stack Development, Machine Learning Models, Cloud Development, DevOps