

# Dian Jin

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## EDUCATION

### Johns Hopkins University

M.S. in Computer Science

Baltimore, MD

Aug 2025 - Present

### University of Wisconsin - Madison

B.S. in Computer Science; B.S. in Data Science | Dean's List

Madison, WI

Aug 2021 - May 2024

## TECHNICAL SKILLS

**Languages:** Python, SQL, C++, C

**Data & Analytics:** Databricks, Spark, Pandas, NumPy, MySQL, PostgreSQL, SQLite, DynamoDB

**Backend & APIs:** Django, Flask, REST APIs, SQLAlchemy, AWS (Kinesis, RDS, S3), MQTT

**Data Engineering:** ETL Pipelines, Lakehouse (Bronze/Silver/Gold), Data Warehousing, Schema Design, Data Quality, Airflow

**Tools:** Git, Docker, Terraform, Jenkins, Linux, CI/CD, pytest

**Concepts:** Data Modeling, Distributed Systems, End-to-End Data Pipelines

**AI-Assisted Dev:** Proficient in AI-powered coding (GitHub Copilot, Claude, ChatGPT) for rapid prototyping, code review, and debugging

## WORK EXPERIENCE

### John Deere

Software Engineer

May 2024 - Present

#### Team 3 - Data Platform & Analytics | Python, SQL, Databricks, Spark, Terraform

- Built end-to-end data pipelines processing 10M+ daily records with real-time ingestion, enabling stakeholders to make faster, data-driven decisions.
- Reduced reporting errors by 35% by standardizing data quality workflows that powered analytics dashboards used across business units.
- Automated recurring cost calculations, eliminating manual spreadsheet work and saving analysts 10+ hours/week.

#### Team 2 - Backend & Cloud Data | Python, JavaScript, SQL, Django, Flask, AWS, PostgreSQL, Terraform

- Led full-stack development of a real-time data platform ingesting streaming data via cloud services and surfacing interactive dashboards, reducing latency by 40%.
- Designed a cost-optimization model analyzing resource utilization patterns, resulting in 25% cloud infrastructure savings.
- Built and globally deployed a monitoring console for real-time service health, increasing engineering efficiency by 60%.
- Architected a customer-facing data visualization platform, earning 90%+ positive user feedback.

#### Team 1 - Systems & Data Infrastructure | Python, SQL, C++

- Developed a real-time performance monitoring module deployed to production, enabling proactive issue detection before user impact.
- Maintained and extended core infrastructure including databases, logging, and automation scripts, ensuring reliable data handling across releases.
- Built an internal analytics tool adopted globally by engineering teams, driving 30% improvement in stakeholder satisfaction and 20% increase in adoption.

### John Deere

Software Engineer Intern | C++

May 2023 - Aug 2023

- Led front-end development of an interactive planning application, enabling users to configure and adjust parameters dynamically.
- Implemented data transformation algorithms converting user inputs into precise coordinates, used across multiple production systems.
- Achieved 97% feature certification rate with strong internal feedback for improving user flexibility and operational efficiency.

### Ark Technology

iOS Developer Intern | Vue.js, React.js, Figma

Nov 2021 - Jan 2022

- Launched a social platform to the App Store attracting 1,000 day-one users with 40% first-week engagement growth.

## PROJECTS

### SUBMIND - Subscription Tracker | TypeScript, React Native, Node.js, API, Docker

- Automates subscription discovery by scanning Gmail via OAuth 2.0, matching 94 service templates to extract charges and infer billing status.
- Delivers a cross-platform dashboard showing active subscriptions, monthly spend, and next billing dates to help users reduce recurring costs.
- Containerized with Docker Compose (3 services) with one-command setup, reducing developer onboarding from hours to under 2 minutes.