

# Jalen Chan

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## EDUCATION

### University of Illinois at Urbana-Champaign

Expected: May 2027

*Bachelor of Science in Data Science, Information Sciences; GPA: 3.63/4.00*

*Champaign, IL*

- Coursework: Database Concepts & Applications, Linear Algebra w/ Computations, Concepts of Machine Learning, Modeling & Learning in Data Science, Data Science Exploration, User Research & Evaluation
- Activities: Business Intelligence Academy (Data Science Cohort), Phi Gamma Delta (Professional Development and DEI Chair), Greeks Redefined (Member)

## SKILLS

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

**Developer Tools:** Power BI, Git, Jupyter, FastAPI, Node.js, Supabase, PostgreSQL, Excel, React

**Libraries & Frameworks:** Pandas, NumPy, Matplotlib, Scikit-learn, Seaborn, SciPy, NLTK, TensorFlow, Keras

**Certifications:** Databricks - Generative AI, Data Analysis with Python - IBM

## EXPERIENCE

### Humana

May 2025 - Present

*Data Analyst Intern*

*Louisville, KY*

- Boosted API observability by **83.1%** by deploying **103** synthetic monitors in Dynatrace to proactively identify endpoint failures and latency issues, enabling faster root-cause analysis and improved SLO adherence
- Designed a centralized Power BI dashboard that integrated certification data across **5** cross-functional teams, automating credential tracking and improving compliance visibility for leadership
- Utilized Agile sprints to prototype and pitch a generative AI solution that automated scrum analysis achieving an **83.3%** time reduction using OpenAI and FlorenceAI to summarize meetings and SQLite for data storage

### SupplierIO

May 2024 - August 2024

*Data Engineer Intern*

*Westchester, IL*

- Accelerated data enrichment by **57.1%** by implementing KMeans and Random Forest models in Python on **100K+** supplier records, streamlining category tagging to enhance ML pipeline efficiency and data quality
- Conducted weekly audits for **35** clients, ensuring accuracy across **20,000+** supplier DEI and sustainability records
- Optimized client tracker by syncing **900+** contracts to internal databases, reducing redundancy and lag by **40%**

## PROJECTS

### Image Captioning Pipeline using Multimodal ML | TensorFlow, Keras, Python, FastAPI, React, NLTK

- Trained a custom social media caption generation model using a CNN-LSTM architecture on **6000+** image-caption pairs from the flickr dataset, achieving a BLEU-1 accuracy of **40%** on image captioning
- Engineered an NLP preprocessing pipeline using Tensorflow tokenizers and vocabulary mapping to clean, normalize, and vectorize over **2.9 million** tokens across **30,000** images
- Applied teacher forcing, early stopping, and BLEU-based evaluation to optimize sequence generation performance and reduce overfitting by **22%**
- Deployed a FastAPI inference service integrated with a React frontend to generate captions from user-uploaded images in under **2** seconds per request

### ByteSize | Expo, React Native, Node.js, Supabase, PostgreSQL, Google Cloud API

- Reduced meal prep time by **30%** with a cross-platform nutrition app built using Expo and React Native that recommends recipes based on pantry items, diet goals, and calorie targets
- Implemented data warehouse best practices using PostgreSQL with advanced SQL queries to efficiently store and query nutrition data from multiple APIs, supporting scalable recipe recommendations
- Established a backend system with Node.js, Supabase, and PostgreSQL that integrates receipt-scanned grocery data with nutrition databases to enable personalized meal recommendations and detailed nutrient analysis