Jalen Chan

(630)-696-1012 | jalen.chan@gmail.com | linkedin.com/in/jalenchan1 | github.com/jalenchan1 | jalenmchan.com

Education

University of Illinois 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 Science 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

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

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 **600,000+** image-caption pairs from the MS COCO dataset, achieving a BLEU-4 score of **0.31** optimized for social content
- Engineered an NLP preprocessing pipeline using Tensorflow tokenizers and vocabulary mapping to clean, normalize, and vectorize over **2.9 million** tokens across **80,000** 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 grouped, context-aware social captions from user-uploaded images in under **2** seconds per request