

Tristan Louis

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EDUCATION

Queens College
Bachelor of Science in Computer Science

65-30 Kissena Blvd., Flushing, NY 11367
Graduated: May 2025

CLUBS & LEADERSHIP

- Weight Room Club—Active member focused on strength training, fitness, and discipline.
- Queens College Stock Broker Exchange Club—Engaged in financial markets, trading strategies, and investment analysis.
- Queens College CODE FOR ALL—Contributed to coding initiatives promoting accessibility and inclusivity in tech.
- D.I.C.E. (Diversity in Computing and Engineering)—Advocated for diversity and inclusion in STEM fields.

EXPERIENCE

Data Science Intern

Dakdan Worldwide- Remote

August 2025 - Present

- Analyze sports-related business data and generate visual reports using Excel and charting tools to support sales and marketing strategy
- Collaborate with team leads to research weekly prompts and extract meaningful trends from datasets.
- Translate analytics findings into actionable insights for the sales team and contribute to client-facing materials.

Software Development Intern

OpenQQuantify - Remote

June 2025 - Present

- Built full-stack features using Flask, HTML/CSS, JavaScript, and SQLAlchemy, including REST APIs and LLM-powered endpoints.
- Actively improving technical proficiency in low-level systems, backend logic, and frontend tools in a hands-on, community-driven engineering environment.
- Helped prototype AI-integrated 3D simulations with CesiumJS and contributed to early digital twin and electronics pipeline integration.

Data Engineer

Open Avenues Foundation: The Build Fellowship Highlight Reel: Automated Sports Content Generation

September 2024 – December 2024

- Spearheaded the development of an AI-driven sports highlight generator, leveraging machine learning & computer vision.
- Engineered a real-time video processing pipeline using XGBoost and OpenCV, integrating ball tracking and automated transitions.
- Refined models through iterative testing, improving highlight accuracy by 12% and reducing false positives in play detection.
- Collaborated with engineers and industry mentors, implementing feature engineering techniques to enhance model performance.

PROJECTS

Predictive Analytics for Diabetes Management

Pandas, AWS SageMaker, AWS Wrangler, NumPy, scikit-learn (KMeans, PCA, StandardScaler), mlxtend (Apriori, association rules), Matplotlib

- Conducted machine learning-based analysis of diabetes treatment patterns using classification models and clustering techniques.
- Applied the Apriori algorithm for association rule mining, identifying key relationships between A1C levels, medication changes, and emergency visits.
- Developed classification models to predict patient outcomes, achieving 85.3% accuracy in medication change predictions and 90.2% accuracy in emergency visit forecasting.
- Performed clustering analysis to segment patients based on treatment plans, providing insights into personalized diabetes care.

Customer Credit Risk Prediction Using Machine Learning

Kaggle, Pandas, NumPy, scikit-learn (Logistic Regression, Decision Tree, Random Forest), XGBoost, Matplotlib, Seaborn, GridSearchCV, SMOTE

- Built a credit risk assessment model to predict loan default probabilities using XGBoost & Random Forest.
- Engineered financial features like debt-to-income ratio, credit utilization, and payment history trends, improving accuracy to 88%.
- Implemented SHAP (Shapley Additive Explanations) for explainability, providing financial analysts with insights into risk factors.
- Built an interactive dashboard using Streamlit, enabling lenders to assess borrower risk in real time and make data-driven loan decisions.

PathMark Interactive BOT

Python, JSON, Flask, Gemini API, SpeechRecognition, pyttsx3, PyAudio

- Developed a voice-activated assistant that helps users find grocery items by querying a nested JSON inventory using natural language.
- Enabled customers to locate items via keyword or voice input and receive audio responses
- Planning the integration of NLP and voice input for future versions

TECHNICAL SKILLS

- **Programming Languages:** Python, SQL, Java, C++, HTML/CSS, JavaScript
- **Machine Learning & AI:** XGBoost, OpenCV, TensorFlow, Feature Engineering, Data Preprocessing
- **Data Processing & Visualization:** Pandas, NumPy, Scikit-learn, Matplotlib
- **Databases & Backend:** MySQL, PostgreSQL, MongoDB, REST APIs
- **Cloud & Deployment:** Google Cloud Platform, Flask, FastAPI, Streamlit
- **Developer Tools:** Git, Linux, VS Code, PyCharm, IntelliJ

CERTIFICATIONS

- **Build Fellowship Completion**—An AI-powered sports highlight generation using ML & computer vision.
- **Code Path Intermediate Technical Prep (TIP102)**—Python, data structures, and algorithms
- **Udemy Full-Stack Web Development Bootcamp**—Node.js, Express, React, and database management.
- **Udemy Python for Data Science & Machine Learning**—Python, data structures, algorithms, and AI applications