# JAMES CHOI

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## EDUCATION:

Queen's University        Bachelor of Computing - Software Design Specialization        May 2027
- Coursework: Data Structures, Algorithms, Machine Learning, Software Architecture, Operating Systems
- GPA: 3.7

## EXPERIENCE:

**Data Engineer Intern**                                                                 May 2025 - present
*Scotiabank*                                                                              *Toronto, ON*
- Wrote 10+ reusable Python scripts for data validation, job orchestration, API ingestion, and Airflow operators, improving pipeline reliability and reducing manual work.
- Maintained dbt models in BigQuery to transform and clean raw data for internal reporting.
- Contributed to a Retrieval-Augmented Generation (RAG) proof of concept by preprocessing documents and embedding metadata into a vector store.

**Azure Integration Developer**                                                          May 2023 - April 2024
*FGF Brands*                                                                              *Toronto, ON*
- Created and deployed multiple custom Logic Apps workflows to automate business processes, orchestrate complex workflows, and integrate applications between Azure and on-premise.
- Designed, developed and implemented over 20 BizTalk maps using XSL, JSON, and C# in Visual Studio to enable data exchange between EDI and XML formats.
- Developed backend services and transformation logic using Python, SQL, and Azure Functions, enabling scalable ingestion of structured and semi-structured data.

**ML Specialist Intern**                                                                  June 2021 - October 2021
*ZeroOne AI*                                                                              *Toronto, ON*
- Participated in Korean Telecommunication Corporation (KT) AI project to develop and deploy anomaly detection models using LSTM, CNN, and GAN architectures in Python and TensorFlow, achieving 95% accuracy on test datasets and enabling proactive identification of irregularities in data.
- Developed Python scripts for data preprocessing and feature engineering, ensuring clean input for machine learning models.
- Implemented data visualization techniques using Matplotlib and Seaborn to present model insights.

## PROJECTS:

**Paper2Video** | *Python, Airflow, Docker*                                               *Dec 2024 - Feb 2025*
- Built a Python pipeline that ingests academic PDFs with PyPDF2 and spaCy, then feeds cleaned text to GPT-4, automatically generating concise Korean scripts from research papers.
- Developed MoviePy routines to programmatically assemble text slides, TTS voice-overs, and visual assets, and orchestrated the end-to-end workflow using Airflow DAGs with XComs, structured logging, and failure alerts.
- Containerized each component in Docker and deployed on GCP Cloud Run with Pub/Sub triggers, auto-scaling, and health checks—consistently delivering a finished video in under two minutes.

## ACHIEVEMENTS/CERTIFICATES

**Dean's List, School of Computing, Queen's University**                                  Fall 2024 - Winter 2025
**Microsoft Certified: Azure Fundamentals (AZ-900)**                                      Jan 2025
**Microsoft Certified: Azure Solutions Architect Expert (AZ-305)**

## SKILLS

**Languages:** Python, Java, C#, SQL, JavaScript, HTML/CSS
**Frameworks & Platforms:** Azure Logic Apps, Data Factory, Functions, BizTalk, Apache Airflow, Docker, dbt, GCP BigQuery, Dataproc, Cloud Composer
**Developer Tools:** Git, VS Code, Visual Studio, Azure DevOps, JIRA
**Libraries & SDKs:** TensorFlow, pandas, NumPy, scikit-learn, OpenAI SDK, matplotlib