Alexander Yoon

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EXPERIENCE

Amazon — May 2025 – Aug. 2025
Software Development Engineer Intern - Android — *Vancouver, BC*

- Developed the Overnight Upload feature for the Amazon Photos Android app, enabling background uploads during low-usage hours; helped increase users reaching the 100% complete backup state by an estimated 15%, driving higher engagement and long-term retention.
- Engineered both frontend UI and backend service logic in Kotlin with AWS integration, optimizing large-scale photo upload reliability.
- Designed and monitored metrics dashboards/alarms to track feature success and health; improved mean time to detect (MTTD) failures by 30%.
- Collaborated within an Agile Scrum team through sprint planning, daily standups, and code reviews, contributing production-ready code to a massive, complex Android codebase.

CIBC — Sep. 2024 – Apr. 2025
Machine Learning Engineer Intern – Salesforce ECRM — *Toronto, ON*

- Developed and maintained data pipelines and workflows with Azure Data Factory and Databricks, improving automation, reliability, and scalability of enterprise data processes.
- Built and enhanced Python applications and RESTful APIs to streamline internal processes, automate reporting, and support data-driven business insights.
- Leveraged NumPy, Pandas, and Databricks to process and visualize large datasets for decision-making; collaborated with stakeholders to align solutions with business goals.
- Contributed to testing, integration, and deployment using tools such as SOAtest, Git, and Bitbucket, ensuring code quality and system stability.

PROJECTS

MAL TV Score Predictor | *Python, FastAPI, scikit-learn, XGBoost/LightGBM, Pandas; React, Vite, Tailwind*

- Built an end-to-end Python pipeline to ingest and clean MAL datasets, engineer features, train a regression model, and serve predictions through a FastAPI API on Uvicorn.
- Designed a Vite + React + Tailwind interface that displays an anime card grid with cover art, MAL IDs, and color-coded score badges, plus CSV export.
- Engineered features from MAL metadata and synopsis text using TF-IDF with dimensionality control, and implemented robust preprocessing with leakage-safe splits.
- Benchmarked linear and tree-based regressors, tuned with K-fold cross validation and early stopping, and selected the final model by RMSE and MAE.

VANKLCommApp: Secure Chat Android Application | *Java, Android Studio, Firebase, AES Encryption*

- Developed a secure chat app for company-wide communication, ensuring confidentiality and integrity of messages.
- Implemented a Key Distribution Centre (KDC) server, mediated authentication protocol, and AES encryption to establish secure channels.
- Built features including Contacts for management and Broadcast for company-wide messaging.
- Utilized MVC1 architecture for modular development and Firebase for database management.

Natural Language Processing (NLP) Analysis Tool | *Python, NLTK, SpaCy*

- Created an NLP-based analysis tool to process unstructured data and extract actionable insights.
- Leveraged Python libraries such as NLTK and SpaCy to perform text classification and sentiment analysis.
- Implemented preprocessing such as tokenization, stop-word removal, and stemming to enhance model accuracy.

EDUCATION

Bachelor of Software Engineering — Sep. 2021 – Present
McMaster University — *Hamilton, ON*

TECHNICAL SKILLS

Languages: Python, Java, Kotlin, SQL, C, C++, JavaScript, HTML, CSS
Frameworks: Spring Boot, REST APIs, Microservices, Django, Flask, React, Redux, PyTorch, TensorFlow
Developer Tools: Git, JIRA, AWS, Bitbucket, Azure, Databricks, Confluence
Libraries: Pandas, NumPy, Matplotlib, SciPy, Dash