Soocharn (Leo) Jeong

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Result-driven visionary with expertise in Machine Learning, AI, and Full-Stack Development, leveraging React Native, Flask, and cloud technologies to build scalable applications and innovative data-driven solutions.

Education

University of Toronto — Toronto, ON
Honours Bachelor of Science in Computer Science, Minor in Statistics — *Sept. 2022 – July 2027*

Professional Experience

React Native Developer — Oct 2024 – Oct 2024
QuickBay — *Toronto, ON*

- Leveraged Docker, Flask, eBay api, OpenCV and a websocket connection to ensure real-time object detection, allowing 10+ listings to be created in one click.
- Applied object-oriented design and and SOLID principles in JavaScript to create high quality software.
- Developed an innovative React-Native application that scans unused items to automatically create eBay listings.

Software Development Engineer — June 2024 – Aug 2024
Toronto Asian Arts Museum App — *Toronto, ON*

- Applied object oriented design and SOLID design principles in Java for an low cost and easy to use codebase.
- Developed 5+ XML views and Java activities to generate a pdf report using the raw data read from Firebase api.
- Followed an agile environment in a Jira team, meeting 4 days sprint deadlines and participating in code reviews under a professional development environment as a software development engineer.
- Fixed a security bug where media data would not be fetched in query edge cases, fixed by unit testing the api.

Projects/Portfolio: leojeongportfolio.netlify.app

RAG arXiv Research Paper Recommender | *Qdrant, Flask, Pandas, Jupyter* — March 2025 – March 2025

- Preprocessed and vectorized a Kaggle arXiv dataset of 200,000+ data using Qdrant, Pandas, and Jupyter
- Developed a system to encode prompts using an LLM sentence transformer from OpenAI, and used it to query a vector database.
- Implemented a Flask REST api to receive an input prompt from the user and make artificial intelligence powered research paper recommendations from the arXiv dataset.

Machine Learning From Scratch | *Python, Numpy, Jupyter Notebook* — Jan 2025 – Feb 2025

- Developed a functional image denoiser from scratch using Python and Jupyter Notebook.
- Implemented RBF, polynomial, and logistic regression algorithm from mathematical models using Numpy.
- Optimized ML algorithms by performing hyperparameter tuning and gradient descent.

Penguin Species Classifier | *Python, Jupyter Notebook, Azure ML Studio* — Aug 2024 – Sept 2024

- Orchestrated a training pipeline and an inference pipeline for a K-mean clustering model that sorts unknown penguins into different species based on their culmen length/size, flipper length, and body mass.
- Performed data cleanup and normalization on a raw csv file, achieving average distance to centroid to 0.26.
- Developed tests with Python Pandas library within the Azure-integrated Jupyter notebook to measure accuracy.

Leadership / Volunteer

Hackathon Organizing Committee — Oct 2023 – Present
Google Developer Group — *Toronto, ON*

- Invoked student engagement for the Google Devfest, gathering 100+ student developers.
- Collaborated with multiple AI student organizations at the University of Toronto to host GenAI Genesis 2024.
- Committed to communicate effectively and exercise professionalism in a team environment

Technical Skills

Programming languages: Java, Python, C/C++, SQL (Postgres), JavaScript, HTML/CSS, C#
Frameworks: React, React-Native, Node.js, Flask, Pytorch, OpenCV, TailwindCSS
Tools: Git, Docker, Jupyter, Firebase, Azure ML Studio, Eclipse, Android Studio, Expo, Jira, Postman, DBeaver, Unix/Linux Operating System, Vim, Agile, Distributed Systems, Unit Testing, Distributed Storage, Matplotlib, Computer Vision, Qdrant, Automation, Data Structures, distributed computing, data mining, Customer Service