AARON LI

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TECHNICAL SKILLS

Languages & Tools: Python, SQL, R, C/C#, Shell Scripting, Linux, MSSQL, MySQL, PostgreSQL, GitHub, GitLab, Jira
Cloud & Data Platforms: Google Cloud Platform, Amazon Web Services, SAS, Snowflake, BigQuery, Redshift
Big Data & Visualization: Spark, Hadoop, Kafka, EMR, Glue, S3, Dataproc, GCS, Power BI, Tableau
Machine Learning & AI: pandas, numpy, scikit-learn, TensorFlow, Vertex AI, SageMaker

WORK EXPERIENCE

Data Engineer — July 2023 – Present
Bell Canada — *Toronto, ON*
- Optimized data storage and processing costs by **80%** by developing five ETL pipelines on Google Cloud Platform using Python, Spark, BigQuery, and Cloud Composer, driving significant cost savings
- Accelerated data transfer between Hadoop (HDFS), SAS, and GCP by **90%** by replatforming 100+ terabyte-scale datasets from on-premises to GCP and refactoring scripts to optimize sourcing, processing, and transformation
- Developed a self-serve data usage model for all Bell FibeTV viewership, creating a single source of truth for data science, analytics, and reporting teams

Undergraduate Computer Science Teaching Assistant — January 2023 – April 2023
McMaster University — *Hamilton, ON*
- Conveyed complex technical concepts such as elementary computing, databases, OS fundamentals, and networking to non-technical undergraduate students through weekly tutorials, slide decks, and office hours
- Collaborated closely with the professor and students, adjusting to changing needs and providing personalized support for 20 students

Electrical and Software Engineering Intern — May 2021 – August 2022
Veoneer Canada — *Markham, ON*
- Automated and improved data extraction, transformation, refresh speed by **95%** for Power BI dashboards used by senior management by shifting from Excel/VBA to Python/SQL, enabling data-driven decision-making
- Reduced cycle time by over **65%** for **11** SMT assembly lines by developing five mechatronic applications using Python, C#, custom APIs, and specialized hardware, following Lean methodology in a fast-paced environment

PROFESSIONAL CERTIFICATIONS

Amazon Web Services (AWS) Certified Data Engineer - Associate — August 2024 – August 2027
Google Cloud (GCP) Professional Data Engineer — July 2024 – July 2026

PROFESSIONAL ACTIVITIES

Machine Learning Research Assistant — April 2024 – Present
McMaster University — *Hamilton, ON*
- Improved prediction accuracy by **78%** by developing neural networks in Python and TensorFlow for job-size estimation in stochastic systems.
- Performed feature analysis on job-size estimation datasets using Python and pandas, applying scheduling policies to improve scheduling efficiency by **55%** and reduce job completion time by **25%**

EDUCATION

Bachelor of Engineering in Mechatronics Engineering — September 2018 – April 2023
McMaster University — *Hamilton, ON*
- Honours: *Summa cum laude* (cGPA: 3.74/4.00)

PROJECTS

Strops | *Python, PostgreSQL, PowerShell, Tableau* — January 2023 – Present
- Independently developed a dashboard to query and visualize significant sports statistics, enhancing personal data analysis capabilities for fantasy sports
- Created a robust ETL pipeline using Python, pandas, and PostgreSQL to automate daily data loading from various open-source APIs, with visualizations in Tableau

Cyclops Ride Assist | *Python, Linux Shell, Git, Raspberry Pi* — September 2022 – April 2023
- Developed an efficient and affordable rear view monitoring system to enhance cyclist safety, utilizing Python, scripting, LiDAR sensors, LED display, and accelerometer-based collision detection
- Awarded the James Dyson National Runner Up Award, as featured by McMaster University, James Dyson, etc.