



# Kellan Jiang

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## SUMMARY

Master's in Electrical Engineering with a focus on ML and AI. Experienced in data processing, statistical analysis, and developing data-driven solutions. Proficient in Python, Pandas, TensorFlow, SQL, and Tableau.

## EXPERIENCE

### DingSheng Garment Company

Mar 2023 - Aug 2024

Software Engineer

Remote

- Utilized **Java** for **ETL processes** with **PostgreSQL**, improving data quality and consistency by **50%**.
- Developed **unit tests** with **JUnit** to ensure data reliability, reducing data error occurrences by **60%**.
- Integrated **AI** models for enhanced **data analysis** and reporting, improving decision-making accuracy by **35%**.
- Implemented **CI/CD pipelines** using **Jenkins**, automating deployment and reducing manual testing efforts.

### Bell's Welding and Mechanical Repair

Dec 2019 - May 2021

Software Engineer

Pennsylvania, United States

- Engineered an **ETL pipeline** in **Python** with **PySpark**, increasing workflow efficiency and improved data accuracy by **50%**.
- Conducted **50+** user interviews to develop **automation** scripts with **Python**, and **SQL**, improving overall user satisfaction.
- Authored comprehensive technical documentation, which reduced customer-related queries by **90%** and facilitated better understanding and usage of the software systems.

## PROJECTS

### Money Flow

Mar 2024 - Present

Project Leader

Toronto, Ontario, Canada

- Utilized **Swift** and **Core Data** to persistently store and retrieve transaction data, ensuring data integrity and efficient querying.
- Ensured **data security** and implemented **data migration** techniques to handle future app updates, maintaining data integrity across different versions of the app.

### Kuang's Place

Mar 2020 - Present

Personal Project

Toronto, Ontario, Canada

- Applied design best practices to website development, resulting in a **50%** increase in user engagement.
- Utilized **Python APIs** and **JSON** for dynamic content retrieval, streamlining workflows and improving efficiency by **90%**.
- Developed a **CMS** in Python, implementing user-centric interface designs that enhanced user experience and facilitated easier content updates.

### Dinno Runner

Mar 2023 - Nov 2023

Personal Project

Waterloo, Ontario, Canada

- Developed and trained **CNNs** with **TensorFlow** and **Python** to achieve a **70%** success rate in agent's action prediction.
- Implemented **deep reinforcement learning** with **TensorFlow**, parallelization, sampling to train the game-playing agent.
- Scaled training process from local machines to **AWS** to handle large datasets, demonstrating expertise in cloud computing for machine learning tasks.

### Automatic Harvest Robot - ShroomBot

Sep 2018 - Dec 2019

Project Leader

Philadelphia, Pennsylvania, United States

- Developed and trained **ML algorithms** using **TensorFlow** and **Python**, resulting in a **40%** improvement in harvesting accuracy.
- Optimized **data workflows** ensuring efficient data transfer and processing, reducing latency by **30%**.
- Conducted functional tests for **ROS**-based arm operations, enhancing operational efficiency and precision.

## EDUCATION

### University of Waterloo

May 2021 - Dec 2022

Electrical Engineering I Master I Focusing Field: Machine Learning and AI & Software

Waterloo, Ontario, Canada

GPA: 3.8/4.0

*Related Courses: AI, Algorithm Design, Optimization, Data Analysis, Data Structure, Software Testing/Quality Assurance*

### Temple University

Aug 2015 - Dec 2019

Electrical Engineering I Bachelor I Minor: Physics

Philadelphia, Pennsylvania, United States

GPA: 3.8/4.0

*Awards: Dean's List for all semesters, Honor Student*

## SKILLS & LANGUAGES

- Data Analysis:** Python, SQL, Pandas, NumPy, Scikit-Learn, TensorFlow, PyTorch
- Software:** C/C++, Java, MATLAB, Docker, Git, Shell
- Tools:** Jenkins, GitHub Actions, Amazon Web Services, Microsoft Azure, Google Cloud Platform.
- Languages:** Chinese Mandarin (Native), English (Proficient)