



Kellan Jiang

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SUMMARY

Master's in Electrical Engineering with a focus on Machine Learning and AI. Experienced in data analysis, performance analysis, developing ML algorithms, distilling existing models, and implementing AI solutions. Proficient in Python, TensorFlow, PyTorch, and CUDA. Skilled in data management, optimization, and software development.

EXPERIENCE

DingSheng Garment Company

Mar 2023 - Aug 2024

Software Engineer

Remote

- Utilized **Java** for **ETL processes** with **PostgreSQL**, improving data quality by **50%**.
- Developed **unit tests** with **JUnit** to ensure data consistency and reliability.
- Integrated **ML models** for enhanced **data processing** and analytics, improving decision-making accuracy by **35%**.
- Implemented **CI/CD pipelines** using **Jenkins**, reducing manual testing effort and accelerating deployment cycles.

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 **Shell**, **Python**, and **SQL**, improving overall user satisfaction and reducing manual workloads.
- 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. Implemented complex data relationships to model financial transactions accurately.
- Designed a **user-friendly interface** prioritizing intuitive navigation and clear data visualization, featuring category selection, transaction search, and insightful reports.
- Ensured **data security** and implemented **data migration** techniques to handle future app updates, maintaining data integrity across different versions of the app.

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 game agent's action prediction.
- Implemented **DRLN** with **TensorFlow**, utilizing parallelization and bagging/boosting for efficient training of the game 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%**.
- Designed robot models in **SolidWorks** and **AutoCAD**, validating them through **simulations** to ensure functionality.
- 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 Coruses: 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

- AI & Machine Learning:** TensorFlow, PyTorch, CUDA, Scikit-Learn, Pandas, NumPy, OpenCV
- Software:** C/C++, Python, Java, JavaScript/TypeScript, HTML, CSS, SQL, Swift, MATLAB, Docker, Git, Shell
- Tools:** ROS, SolidWorks, AutoCAD, Jenkins, Amazon Web Services, Microsoft Azure, Google Cloud Platform
- Languages:** Chinese Mandarin (Native), English (Proficient)