Kristen Zhang

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EDUCATION

Software Engineering (BESc.), Business Administration (HBA.)   London, ON, Canada
Western University   *September 2020 - October 2025*
- **Engineering GPA**: 3.8/4.0; Dean's Honour List (2021, 2022, 2023); Ivey Dean's Honour List 2023 (Top 25%); RBC Scholarship in Engineering, $25000 (1 of 5 recipients in all of Engineering)
- **Coursework**: Data Structures & Algorithms, Web Technologies, Networking, Database Management Systems, Digital Logic, Game Development, Software Development & Analysis, Operating Systems, Microprocessors, Software Engineering Design

TECHNICAL SKILLS

Languages: Python, Java, C, TypeScript, JavaScript, C#, Bash
Frameworks/Libraries: pandas, React, React Native, Node.js, NumPy, AWS, Flask, Jinja, BeautifulSoup
Tools/Skills: MySQL, MongoDB, Linux, Docker, AWS, CI/CD, Prometheus, Grafana, Crontab, Airflow

EXPERIENCE

Citibank   Mississauga, ON, Canada
Software Developer Intern   *May 2023 - August 2023*
- Achieved real time accuracy and improved efficiency by automating EOD transaction checkouts through web scraping data and building a summary table visualization using Python, BeautifulSoup and Pandas
- Created a script to sort daily production tasks, parse error log files, and generate monthly job failure reports for a portfolio of 800+ jobs; efforts improved accuracy rate to 100% and boosted efficiency by 180%
- Fully automated scripts through creating and deploying DAG workflow processes using Apache Airflow
- Coded tests to check completion of inbound feeds and send email alerts using Bash and crontab, reducing total job failures

Meta   Remote
Production Engineering Fellow (MLH)   *May 2022 – August 2022*
- Built an open-source, full-stack personal portfolio website using HTML/CSS and the Jinja templating engine, creating a flexible and reusable frontend for future scaling
- Created REST API endpoints using Flask; integrated with a MySQL database to handle user input and data
- Containerized website using Docker to guarantee easy and flexible redeployment of code for future users
- Implemented automated tests into the website's CI/CD pipeline; contributions improved troubleshooting process
- Set up system and container monitoring and alerting using Prometheus and Grafana to visualize resource utilization

Western Engineering   London, ON, Canada
Data Science Intern   *May 2021 – August 2021*
- Developed a user-friendly recording GUI that encodes the maximum quality and FPS of a camera hardware; creating the code framework for future video data collection
- Conducted multiple recording tests with the Luxonis Oak-D camera and documented hardware and software limitations, efforts ensured a smooth transition for future interns
- Implemented code for customized file organization, giving users the flexibility to categorize storage of data
- Received the NSERC Undergraduate Student Research Award ($8400), a national research award in Canada

PROJECTS

Project Patent ⍟ | *Python, Pandas, Numpy, Matplotlib, Jupyter Notebook*
- Cleaned and processed data on over 3 million patents and categorized them based on different patent classifications
- Mapped relationships between different data variables and graphed correlations and trends using Matplotlib
- Computed technological distance of patents through calculating the ratio of patents to occurrences of patent pairs

Travel Buddy ⍟ | *React, JavaScript, HTML/CSS, LeafletJS, OpenStreetMap, OpenAI API*
- A dynamic web app with real-time weather data and OpenAI chatbot for travel and weather recommendations
- Routes travel path from source to destination and fetches safety information on every road in path

LEADERSHIP

Innovation & Entrepreneurship Club   London, ON, Canada
President   *May 2022 - May 2023*
- Planned and executed interactive club events to encourage leadership and build business acumen for club members; efforts increased student involvement by 66%
- Managed an executive team of 12 members and directed bi-weekly meetings to delegate important tasks; enhanced team unity and ensured club activities ran smoothly.