

# ZIJIANG YAN

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## EDUCATION

**Honours Bachelor of Science:** Double Major in Computer Science & Statistics 2016-2021  
**York University** - Toronto, Canada

## PROFESSIONAL & INTERNSHIP EXPERIENCE

**DevOps Engineer**, 10/2021 to Current

**Bell Media** – Toronto, Canada

- Participate in Continuous Integration Continuous Delivery (CICD) cycle based on Gitlab, Jenkins, OpenShift, jFrog, AWS.
- Improve the deployment process and build the automation deployment system based on Jira and Gitlab.
- Solely work on Dependency-track platform to detect the dependency risk and alarming through Slack.
- Automate provisioning and configuration of environments using infrastructure-as-code techniques.
- Improve the Content Delivery through Adobe Experience Manager (AEM).

**Machine Learning Researcher**, 03/2021 to Current

**Lassonde School of Engineering - York University** – Toronto, Canada

- Solely simulate Intelligent Driver model in Matlab, design *RF-THz-Highway* Environment with Gym API.
- Implementing Q-learning, Deep Q learning and Double Deep Q learning algorithm for the system model.
- Implement Multi Objective Reinforcement learning and Meta Reinforcement Learning to improve telecommunication quality and reduce the transmission latency as well as improve the traffic flow efficiency.
- Contribute higher availability design based on Markov Decision Process ensure load balancing across the network.

**Software Engineering Intern**, 05/2021 to 08/2021

**Bell Canada** – Toronto, Canada

- Participated in the implementation of assurance service system in Network Department.
- Create a Data flow system with Python and Kafka. Maintaining a SSH database, Network system, and picking-packing system with MySQL.
- Develop Fault detection algorithm to handle error and validate data.

**Peer Tutor**, 08/2017 to 6/2021

**Bethune College – York University** – Toronto, Canada

- Tutored more than 1000 students within various levels of education regarding STEM subjects such as Computer Science, Mathematics, Statistics, and Information Technology.
- Actively tutored students on utilizing data analysis tools including SAS, R and Java to effectively assist students with completing analytically focused academic projects.
- Communicated frequently with parents, students, and faculty to provide feedback and discuss instructional strategies.

## RELEVANT PROJECTS

**Reinforcement Learning for Joint V2I Network Selection and Autonomous Driving Policies (GlobeCom2022)**

- Develop a RL-based framework to jointly optimize network selection and autonomous driving policies in multi-band VNets to (i) maximize the traffic flow and minimize collisions, and (ii) maximize the data rates and minimize handoffs by controlling the AV's motion dynamics and network selection.

**Predicting Income Potential by Building Classifiers | Pytorch & PostgreSQL**, 11/2020 to 02/2021

- Implement KNN algorithm to classify income data.
- Implement deep Neural Network to improve the pattern matching performance.
- Visualized project data on Github to display and analyze correlations.

**North Pole Countries Database | Java IDE & PostgreSQL**, 06/2021 to 08/2021

- Developed interactive database application utilizing Swing as frontend.
- Implemented and established database environment employing technical proficiency in Linux and Windows.

## SKILLS

- **Programming Languages** | Java, Python, C/C++, SQL (Postgres), JavaScript, HTML5, R, SAS, Stata, MATLAB
- **Developer Tools** | Git, Docker, TravisCI, Google Cloud Platform, AWS, Visual Studio, PyCharm, IntelliJ, Eclipse, Android Studio, Jupyter Notebook, Markdown & Minitab
- **Libraries** | Tensorflow, Pytorch, pandas, NumPy, Matplotlib, Gym
- **Hardware** | Embedded Systems STM32 & Robotics
- **Interpersonal Qualities** | Networking, Communication, Leadership & Presentation
- **Languages** | Mandarin & English