

Yuwei Jiao

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Education

Computer Science, Thesis Based, Artificial Intelligence Group

University of Waterloo

CANDIDATE FOR MASTER OF MATHEMATICS, AVERAGE GRADE: 86/100

2016. 9 - Exp. 2018. 8

- CS666: Algorithm Design & Analysis, CS886: Software Engineering for Big Data, CS848: Modern Data Processing Systems, CS889: Applied Computer Vision for Human-Computer Interaction, ECE 750: Distributed and Network-Centric Computing

Computer Science

University of Waterloo

EXCHANGE PROGRAM, AVERAGE GRADE: 90/100

2015. 9 - 2016. 4

- CS486: Introduction to Artificial Intelligence, CS349 User Interface, CS348: Introduction to Database Management, CS454: Distributed Systems, CS476: Numeric Computation For Financial Modeling

Computer Science and Technology

Tsinghua University

BACHELOR OF ENGINEERING, AVERAGE GRADE: 86/100

2012. 9 - 2016. 7

- Introduction to Machine Learning, Introduction to Artificial Intelligence, Artificial Neural Networks, Fundamentals of Computer Graphics, Software Engineering, Operating Systems, Theory of Computer Network

Skills

Interest Areas

Artificial Intelligence, Machine Learning, Neural Network, Distributed System, Big Data, Data Mining, Computer Graphics

Programming

C/C++, Java, Python, Matlab, Javascript, HTML5, CSS, Bootstrap, PHP, SQL, Swift, jQuery, Jekyll, Hadoop, Spark, Scala, OpenCV

Dev Tools

Windows, Linux/Unix, Mac OS, Vim, Sublime, IntelliJ, Bash, Git, SVN, Latex, Markdown, TensorFlow, Caffe, AWS Services

Experience

Amazon

Vancouver, Canada

SOFTWARE ENGINEER INTERN, AWS SECURITY GROUP

2017. 5 - 2017. 9

- It's valuable to know if the actor is human or service so that AWS Macie could set anomaly alert threshold accordingly. Given batches of aggregated logs, this project was consisted of three phases: labelling raw data, training ML models and classifying future incoming data.
- **Hive** and **Presto** were used to establish database and do data transformation, and **Apache Zeppelin** was used to do data visualization and interacted queries. Applied several machine learning models including RF, GBT, MLP and SVM in Spark ML library and compared models regarding to accuracy, efficiency and scalability. It turned out both RF and GBT hit the best performance with an accuracy more than 95% and a latency less than 1 second.
- The classification results could be output to Macie Elasticsearch component for further use.

University of Waterloo

Waterloo, Canada

GRADUATE COURSE PROJECT, SUPERVISED BY PROFESSOR SEMIH SALIHOGLU

2016. 9 - 2016. 12

- Trained a **convolutional neural network** using CIFAR-10 dataset on large-scale data processing systems and generated artistic style images from daily photos with extracted content/style features at low time costs.
- Constructed the neural network with **TensorFlow** and processed on **Spark**. Compared the two distributed data processing systems, mainly on computation efficiency, dataset scalability and fault tolerance.

xuetangX.com

Beijing, China

RESEARCH INTERN, DATA MINING GROUP

2016. 5 - 2016. 8

- Built a system to segment course subtitles into multi-paragraph subtopics using natural language processing techniques, including **texttiling** and **n-gram algorithms**. Then extracted key words for each lesson according to word frequencies in subtopics.
- Mapped after-class exercises to each subtopic using several classification algorithms including **Bayesian**, **SVM** and **KNN**.

University of Waterloo

Waterloo, Canada

UNDERGRADUATE RESEARCH ASSISTANT, SUPERVISED BY PROFESSOR JESSE HOEY

2016. 1 - 2016. 5

- Research: Social Dilemmas - From Rational to Human Perspectives.
- Started from a purely rational standpoint to human solutions in game theory. Applied **humans' facial expressions**, **emotions** and **social interactions** to intelligent machine. Achieved 5% improvement over traditional strategies based on Iterated Prisoner's Dilemma Games.

Tencent

Shenzhen, China

SOFTWARE ENGINEERING INTERN, TECHNOLOGY AND ENGINEERING GROUP

2015. 7 - 2015. 8

- Developed an online poster maker application. Written in **php + SQL** on server end and **HTML5 + CSS + Javascript** on front end.
- The production-grade software using **Lithium MVC Framework** has been embeded in Wechat (one popular social appliaction in China).

University of Melbourne

Melbourne, Australia

UNDERGRADUATE RESEARCH ASSISTANT, SUPERVISED BY PROFESSOR RUI ZHANG

2015. 1 - 2015. 2

- Proposed a new method to Suffix Tree optimization by updating path between activated and ending nodes in **Suffix Tree** to improve efficiency.
- Won prize in "Data Analytics, Information Retrieval and Algorithms" in the final evaluation.