

Yuan Sun M.Eng. Student in Electrical and Computer Engineering

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TECHNICAL SKILLS

Programming Language

- JAVA
- Python
- C and Assembly
- MATLAB
- Shell Scripts
- JavaScript
- CSS
- SQL

Software

- VS Code
- Eclipse
- Pytorch
- CAFFE
- Git
- Junit
- Maven

Electrical related

- Multisim
- Proteus
- Altium Designer
- Keil
- Labview

EDUCATION

University of British Columbia

Sept.2018 – May. 2020

Master of Engineering – Electrical and Computer Engineering

Courses taken:

- CPSC 320 Intermediate Algorithm
- CPSC 532M Machine Learning and Data Mining
- CPEN 502 Architecture for Learning Systems
- CPEN 541 Multimedia Systems
- CPEN 502 Software Verification and Testing

Beijing Jiaotong University(BJTU), Beijing, China

Sept.2014 – Jul.2018

Bachelor of Engineering in Communication Engineering

Overall GPA: 4.1/5 (91/100) Rank: 17 / 271

CO-OP WORK EXPERIENCE

Lumerical Inc.

May – Dec.2019

Quality Assurance Engineer

Research Topic: Deterministic Network

- Contributed to UI automation testing project utilizing UI automation software and framework
- Coordinated with development team to find, reproduce, record bugs.

China Academy of Information and Communications Technology, Beijing, China

Mar – Jul.2018

Research Intern **Adviser: Dr.Shihui Duan**

Research Topic: Deterministic Network

- Collected the latest IETF Deterministic Networking Working Group documents.
- Presented reports about the characteristics usage scenarios of Deterministic Networking.

RESEACH EXPERIENCE

National Laboratory of Pattern Recognition, Jul – Oct.2017
Chinese Academy of Sciences Institute of Automation(CASIA), Beijing, China

Research Intern **Adviser: Dr.Yang Yang**

Research Topic: Person Re-identification and Person Parsing based on Convolutional Neural Networks

- Acquainted myself with both classic and state-of-the-art methods (PACNet, SVDNet, SpindleNet).
- Did Matlab and Python experiments to implement and verify computer vision algorithms.
- Co-authored the paper "Pedestrian Parsing by Joint Learning from Wholes and Parts".

National Engineering Laboratory for Next Generation Internet Interconnection Jan – Nov.2017
Devices, Beijing Jiaotong University, China

Undergraduate Research Assistant **Adviser: Prof.Huachun Zhou**

Research Topic: Deep Packet Inspection Services Based on Software Defined Network

- Configured the simulation environment in Linux system for Software Defined Network (SDN).
- Re-implemented Deep Packet Inspection Service based on an existing paper.
- Evaluated the effect of Deep Packet Inspection Services on performance under different cases.

TECHNICAL PROJECTS

Project: Exploring Different Approaches to Improve Binary Classification Nov - Dec.2018
Performance for Imbalanced Data Set

- Applied three techniques which are oversampling, undersampling and classweighting into dataset.
- Compared their performance respectively and summarized as a report.

Project: Reinforcement learning in Robocode Tank Sept - Dec.2018

- Developed a robocode tank using reinforcement learning improved its performance during battles.
- Implemented using both Look-Up-Table and deep neural network for reinforcement learning tank.

Project: A Deep-Learning-Based Chroma Subsampling Method for HDR Video Sept - Dec.2018

- Preprocessed image data for training and testing.
- Tested the result of our deep neural network model.

Project: Automatic instrument recognition based on multi-instance learning Mar - Jun.2018

- Researched on existing methods of using multiple instance learning on image recognition.
- Implemented SVM model on instrument recognition, mainly on indicator lights and rotary knobs.
- Improved the accuracy by designing an algorithm using multi-instance learning.

Project: Design and implementation of BJTU Network Lab featured website Nov.2017

- Built an information website platform for our Network Lab.
- Set up the WEB server and designed the website using ASP and ACCESS.
- Realized the website functions including submitting homework, sharing files, interactive comments.

TECHNICAL CLUBS

- Member of Beijing Jiaotong University (BJTU) Robot Club. Jul.2015 - Feb.2016

AWARDS

- *Successful Participant*, Mathematical Contest in Modeling Jan.2017
- Traffic control technology Co. Scholarship (Top1%),BJTU Oct.2016
- Third Prize (Top10%) in Robot design contest, BJTU Dec.2015
- First Class Scholarship (Top 3%), BJTU Oct.2015