# **WENQING YAN**

12th May 1994, China

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I am a second-year Ph.D. student from Uppsala University, IT department. My research topic is Data Analysis for Security in Body Area Communication, supervised by Prof. Christian Rohner and Prof. Thiemo Voigt.

I am a generalist has the considerable reserve of communication, networking and machine learning knowledge.

# **EDUCATION**

# **Uppsala University**

September 2018 – Estimated September 2023

Ph.D. of with a focus on Wearable Sensor Network Security

Uppsala, Sweden

Relevant Courses: Sequential Monte Carlo methods (Thomas Schön),

Fundamentals of Machine Learning over Network (FEP3260) etc.

## KTH (Kungliga Tekniska högskolan)

August 2016 – September 2018

Master of Network Services and System (GPA 4.83/5.0)

Stockholm, Sweden

Wireless Transmission Techniques(IK2508), Machine learning(DD2421),

Management of Networks and Networked Systems(EP2300) etc.

#### University of California, Los Angeles

July 2015 – September 2015

Exchange student of Communication Department (GPA 5.0/5.0)

Los Angeles, USA

Relevant Courses: Probability, Media and Mind

## **Beijing Jiaotong University**

August 2012 – June 2016

Bachelor of Engineering, Communication Systems Engineering (Grade 88/100)

Beijing, China

Relevant Courses: Principles of Communication Systems, Signal Processing and Digital Transmission etc.

# **PROJECTS**

#### Physical Layer Intrusion Detection System for Wearable Devices

January – October 2019

Security for Body Area Network – 1<sup>st</sup> Project of Ph.D. Research

Uppsala, Sweden

Use a data analysis method to track wireless signal strength time series and detect abnormal behavior.

- Collect data from wearable sensor testbed focusing on human walking posture.
- Analyze physical signal time series, find out suitable machine learning methods to build prediction models.
- Using outlier detection algorithms to distinguish abnormal behavior coming from illegal devices.

#### **Machine Learning for Enabling Active Measurements in IoT Environment**

January – September 2018

Management of Networks and Networked Systems – Master Thesis in Ericsson Research

Stockholm, Sweden

Use data analysis method to achieve network analytics in IoT environment.

- Collect data from IoT testbed, analyze the relationship between different features and process data.
- Based on the statistical analysis results, find out suitable machine learning method to build prediction models.
- Focus on feature selection, offline learning and online learning models, and the final goal is an optimal framework to prediction network performance metrics.

#### **Estimating Conformance to Service Level Agreements**

September – October 2017

Management of Networks and Networked Systems - Course Individual Project

Stockholm, Sweden

Use machine learning method with Python-Scikit to do network analytics.

- Investigate SLA conformance of a video-on-demand (VoD) services with a small range of dataset.
- Focus on finding out the kernel features and the suitable estimation model.

# **PUBLICATION**

Machine-Learning Based Active Measurement Proxy for IoT Systems

Predicting Round Trip Time Distributions in IoT Systems using History

<u>Predicting Round-Trip Time Distributions in IoT Systems using Histogram Estimators</u>

Privacy-preserving Continuous Tumour Relapse Monitoring Using In-body Radio Signals

PHY-IDS: A Physical-layer Anomaly Detection System for Body Area Networks

IM'19<sup>1</sup>
NOMS'20<sup>2</sup>
WearSys'20<sup>3</sup>
SafeThings'20<sup>4</sup>

## **INTERNSHIP**

#### **Baidu Inc. CBSD (Corporate Business Supervision Department)**

October 2015 – April 2016

One of the largest Internet companies in the world, which offers various service, including a famous Chinese search engine for websites, audio files, and images

- Collected infringing user behavior features and analyzed data from the perspective of risk control.
- Worked with team to explore the demands of automatic supervision system and design a system framework.
- Participated in the testing work of final products; put forward suggestions and opinions.

## Beijing ZTE-CE Technology CO., Ltd.

March 2016 – April 2016

One of the largest Chinese multinational telecommunications equipment and systems company

- Completed the practice courses of LTE test, OTN (Optical Transport Network) test, PTN (Packet Transport Network) test and Data Communication; analyzed some company internal network structure.
- Achieved the honor of excellent intern with a good presentation of system function analysis.

## **COMPUTER - SKILLS**

- Programming language: Python, C, Matlab
- Machine Learning Library: Sciki-learn, Keras, MxNet
- Operating system: Linux, Contiki, MacOS, Windows
- Database: MySQL, MariaDB
- Other: Wireshark, Linux server, Microsoft Office, LaTeX, Visio

## LANGUAGE - SKILLS

English: Advanced in both written and spoken

Chinese: Mother tongue Swedish: Beginner

# ADDITIONAL QUALIFICATIONS

Scholarship: KTH One-Year Scholarship based on the academic performance at KTH

Driving license: Chinese-C1

# PROFESSIONAL REFERENCES

#### Christian Rohner

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Uppsala University, Sweden Phone Number: +46 701679361

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#### **Andreas Johnsson**

Job Title: Master Researcher Ericsson, Stockholm, Sweden Phone Number: +46 730958206

e-mail: andreas.a.johnsson@ericsson.com

<sup>&</sup>lt;sup>1</sup> IFIP/IEEE International Symposium on Integrated Network Management

<sup>&</sup>lt;sup>2</sup> IFIP/IEEE Network Operations and Management Symposium

<sup>&</sup>lt;sup>3</sup> ACM Workshop of Wearable Systems and Applications – in conjuction with ACM MobiSys

<sup>&</sup>lt;sup>4</sup> IEEE Workshop on the Internet of Safe Things – in conjection with IEEE S&P