YINGYING WANG

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Electrical and Computer Engineering, the University of British Columbia (UBC)

EDUCATION

The University of British Columbia, Canada   05/2019 - Present
PhD student in Electrical and Computer Engineering

The University of British Columbia, Canada   09/2017 - 04/2019
Master of Applied Science (MASc) in Electrical and Computer Engineering

The University of British Columbia, Canada   09/2015 - 08/2017
Master of Engineering student (transferred to MASc) in Electrical and Computer Engineering

Dalian University of Technology (DUT), China   09/2011 - 07/2015
Bachelor of Engineering in Software Engineering

PUBLICATIONS

Junbin Zhang, **Yingying Wang**, Lina Qiu, and Julia Rubin, "Analyzing Android Taint Analysis Tools: FlowDroid, Amandroid, and DroidSafe". IEEE Transactions on Software Engineering, 2021

Yingying Wang, Harshavardhan Kadiyala, and Julia Rubin, "Promises and Challenges of Microservices: an Exploratory Study". Empirical and Software Engineering Journal, 2021

Lina Qiu, **Yingying Wang**, and Julia Rubin, "Analyzing the Analyzers: FlowDroid/IccTA, Amandroid, and DroidSafe". The 27th International Symposium on Software Testing and Analysis (ISSTA), **ACM SIGSOFT Distinguished Paper Award (23% acceptance rate)**, 2018

TEACHING ASSISTANT EXPERIENCE

The Department of Electrical and Computer Engineering, UBC   09/2020 - 12/2020
CPEN 321 Software Engineering   *Vancouver, Canada*

· Held weekly meeting to supervise and provide feedback on projects of four groups
· Held office hours and answer student questions regularly online
· Marked assignments, course projects, and examinations

The Department of Computer Science, UBC   09/2017 - 12/2017
CPSC 304 Introduction to Relational Databases   *Vancouver, Canada*

· Supervised and provided feedback on six course project groups
· Held weekly laboratory tutorial, held weekly office hour, and answer student questions regularly online
· Marked assignments, course projects, and mid-term and final-term examinations

EMPLOYMENT EXPERIENCE

The Reliable, Secure, and Sustainable Software Lab (ReSeSS), UBC   09/2017 - Present
Research Assistant   *Vancouver, Canada*

· Research interests in collaborative software development, program analysis, and security vulnerabilities
· Assisted with the supervision of two UBC undergraduate students: Catherine Lee and Linh Tran

Mitacs Accelerate at Samsung
Mitacs Intern

05/2019 - 12/2020

Vancouver, Canada

· Analyze over one hundred Samsung repositories to identify secrets such as private keys or access tokens
· Classify the detected secrets in terms of secret types and secrets severity
· Develop a solution that prevents developers from committing secrets into repositories

ZE Power Group
Database Operations Coop

05/2016 - 12/2016

Richmond, Canada

· Involved in daily operations and maintenance around 20 Oracle databases (> 20TB in size)
· Assisted with production database migration from Oracle 11g to 12c EE

TECHNICAL PROJECTS

Taint analysis in microservices
01/2021 - Present

· Extending existing taint analysis tools to support microservice-based applications

Practices and challenges in microservices
03/2018 - 07/2020

· Collected practices, lessons learned, and challenges when developing microservice-based applications by interviewing 21 industrial practitioners and surveying 37 survey respondents from 37 companies

Comparative analysis of Android static taint analysis tools
02/2017 - 07/2020

· Compared the accuracy and execution time of three state-of-the-art static taint analysis tools (Flow-Droid, Amandroid, and DroidSafe) on Android benchmark suites and Google Play applications

Uncover how ad-hoc teams use shared file systems
01/2017 - 05/2017

· Investigated how ad-hoc teams used online shared file systems such as Google Drive, Dropbox, etc., by conducting 18 individual and 3 focus group semi-structured interviews
· Proposed and evaluated prototypes that improves the online shared file systems

Online movie recommendation engine using Django, Spark and Redis
01/2017 - 05/2017

· Implemented an online movie recommendation engine with Spark Milib, implemented web interfaces with Django, and stored data in Redis databases
· Containerized the application with Docker and deployed the website on Amazon EC2 Ubuntu server

Using Guzheng interface to control live-action sports video streams
01/2016 - 05/2016

· Uses a string instrument (Guzheng) interface to control which video channel to broadcast
· Implemented interface operations such as video channel selection and real-time video zoom-in/out

AWARDS / HONORS

UBC Four Year Doctoral Fellowship	2019 - 2023
ACM SIGSOFT Distinguished Paper Award	2018
Dalian Outstanding Graduating Student	2015
DUT Outstanding Graduating Student	2015
DUT Merit Student	2012 - 2014
Outstanding Academic Performance Award (top 20% students, 1,000 RMB)	2012 - 2014
The Second Class Prize, DUT Mathematics Modeling Contest	2014
The Honorable Mention, 2014 MCM/ICM Contest	2014
DUT Outstanding Social Practice Scholarship (800 RMB)	2014

DUT Outstanding Social Work Scholarship (800 RMB)   2014
DUT Software School Merit Student (1/248 students)   2013

VOLUNTEER

ISSTA'18   07/2018-07/2018
Student Volunteer   *Amsterdam, Netherlands*

SPLASH'17   10/2017-10/2017
Student Volunteer   *Vancouver, Canada*

UBC Graduate Student Orientation   08/2017-08/2017
Student Volunteer   *Vancouver, Canada*