Yanjie He

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Portfolio of Projects: https://yanjiehe.github.io/

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### **EDUCATION**

• The George Washington University

Master of Science in Data Analytics (Computer Science track); GPA: 3.80/4.00

Washington D.C., USA Anticipated May. 2020

Github: https://github.com/YanjieHe

• Shanghai University of International Business and Economics Bachelor of Arts in Economics; GPA: 3.71/4.00

Shanghai, China Sept. 2013 – June. 2017

# SKILS

• Coding: C++, C#, Java, Scala, Python, R, SQL, Scheme/Racket, HTML/CSS, JavaScript

• Web Development: React.js, D3.js, Spring Boot, MyBatis, RESTful API

• Modeling Skills: Machine Learning, Statistics, Social Network Analysis, NLP

• Databases: MySQL, SQL Server, Sqlite3

• Frameworks & Libraries: Qt5, Spark, JUnit, Eigen, OpenCV

• Toos & Technologies: Compiler Design, Recommender System, Linux, Git, Web Scraping

## EXPERIENCE

### • Machine Learning Researcher

Washington D.C. Metro Area, USA Oct. 2018 - Anticipated Feb. 2019

George Washington University

- o Project Title: Artificial Intelligence and User Behavior for Robust Near Real-Time Recommendations
- o Position: Group research collaborator for Dr. Benjamin Harvey, faculty of the George Washington University
- Recommender System: Developing a graph-based recommender system, supporting real-time query and utilizing collected user behaviors data.
- Software Development: Developing the back-end with Spring Boot. Using Github for collaborative development and version control. Utilizing RESTful API to provide interoperability between front-end and back-end.
- Information Retrieval System: Applying methods in Natural Language Processing to retrieve information from user activities in the browser.

## Computational Social Scientist

Washington D.C. Metro Area, USA Sept. 2018 - Anticipated Apr. 2019

 $George\ Washington\ University$ 

- Social Network Analysis and Data Analysis: Working with Professor Vontrese Pamphile at the George Washington University, applying mathematical and statistical techniques to novel data.
- Analytical Programming: Reviewing academic papers. Using Python, R and Scala to clean datasets and run the models. Utilizing packages including NetworkX and igraph.
- Reporting: Writing and submitting data analysis report bi-weekly.

## • Data Engineer Intern

Kantar Media CIC

Shanghai, China

July. 2016 - Feb. 2017

- Data Collection: Collected online comments with team members utilizing Python, and provided data cleaning solution using C# and SQL Server for Chanel APAC project.
- Data Visualization: Developed Data Visualization Solution in C# for GroupM television show, to plot Venn Graph according to given data automatically.
- Text Mining System: Developed a text mining system in C# with team members. The system was used by more than 50 data analysts in the company to make data analysis solution for L'Oréal, Chanel, Volkswagen, and Dell. Saved more than 10,000 dollars of outsourcing cost. The system was processing millions of text data records every month.
- Sentiment Analysis: Improved the accuracy of sentiment analysis by 17% compared to the previous tool used in the company.

#### Selected Projects

For more details about my projects, please click the link https://yanjiehe.github.io/.

- A Compiler and a Virtual Machine: Developed a compiler for a statically typed language, a bytecode disassembler, and a virtual machine in C++.
- A Content-based Movie Recommender System: Developed a content-based movie recommnder system in C++ and Python. Extracted image and audio features from movie trailers, and utilized the network relationship between movies.
- Text Co-occurrence Network Analysis for The Hunger Games: Implemented text co-occurrence network to visualize the relationship between the main characters in the novel *The Hunger Games* with Python.