# Yanjie He

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

- **The George Washington University**  Washington D.C., USA
  *Master of Science in Data Analytics (Computer Science track); GPA: 3.80/4.00*  *Anticipated May. 2020*
  - **Courses**: Design & Analysis of Algorithms, Database System II, Information Retrieval System
- **Shanghai University of International Business and Economics**  Shanghai, China
  *Bachelor of Arts in Economics; GPA: 3.71/4.00*  *Sept. 2013 – June. 2017*

## RELEVANT SKILLS

- **Coding**: C, C++, C#, Java, Scala, Python, R, SQL, HTML/CSS, JavaScript, Scheme/Racket
- **Front-end**: React.js, D3.js, Bootstrap, Semantic UI
- **Back-end**: Spring, MyBatis, Hibernate, MySQL, Linux, JUnit, Play, PostgreSQL, Elasticsearch
- **Tools & Technologies**: RESTful API, AWS, Spark, Machine Learning, Shell scripts

## EXPERIENCE

- **Machine Learning Researcher**  Washington D.C. Metro Area, USA
  *George Washington University*  *Oct. 2018 - Anticipated Apr. 2019*
  - **Project Title**: Artificial Intelligence and User Behavior for Robust Near Real-Time Recommendations
  - **Position**: Group research collaborator for Dr. Benjamin Harvey, faculty of George Washington University
  - **Recommender System**: Developing a graph-based recommender system, providing real-time query service and utilizing collected user behaviors data.
  - **Back-end Development**: Developing the back-end with Spring. Using Github for collaborative development and version control. Utilizing RESTful API to provide interoperability between front-end and back-end. Operating MySQL database to organize the data.
  - **AWS**: Deploying Spring on AWS EC2, and MySQL on AWS RDS.
  - **Information Retrieval System**: Developing a web scraper with Python to collect data. Applying methods in natural language processing to retrieve information from user activities in the browser.

- **Computational Social Scientist**  Washington D.C. Metro Area, USA
  *George Washington University*  *Sept. 2018 - Anticipated Apr. 2019*
  - **Social Network Analysis & Data Analysis**: Working for Professor Vontrese Pamphile's social science research project at 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.

- **Data Engineer Intern**  Shanghai, China
  *Kantar Media CIC*  *July. 2016 - Feb. 2017*
  - **Data Visualization**: Developed Data Visualization Solution in C# for GroupM television show.
  - **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. Saved more than 10,000 dollars of outsourcing cost.
  - **Sentiment Analysis**: Improved the accuracy of sentiment analysis by 17% compared to the previous solution.

## SELECTED PROJECTS: 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++.
- **An Online Retail Platform**: Developing a website where customers can browse and purchase products, and a management system for merchants to manage.

  - **Front-end:** Building an UI with React.js, which communicates with the back-end service using RESTful API.
  - **Back-end:** Designing the data model. Developing a back-end with Spring and Hibernate, providing RESTful API.
  - **User Management:** Customers and merchants can register and login in two separate systems. And they can choose to keep logged in for a week.
  - **Shopping Cart & Ordering:** Users can put their selections into the shopping cart and place orders. The merchants can process the requests with the management system.