

# RICHARD JIANG

## Software Engineer | Pre-Doctoral Instructor

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🌐 <https://richardjiang.dev>

## WORK EXPERIENCE

### 2x Software Engineer Intern

#### Microsoft Corporation

📅 06/2019 – 09/2019; 03/2020 – 06/2020 📍 Seattle, WA

##### First Internship

- Delivered an Office out of box experience to millions of new users helping them configure Office more easily
- Improved the product by collaborating across teams with other developers, product managers, and designers
- Lead design and exit reviews as a part of an iterative development cycle
- Worked in React.js, C#, and TypeScript to implement efficient, extensible, and testable code
- Created data stories and telemetry to monitor and analyze the health of services
- Conducted A/B experiments to determine the business effectiveness and future improvements of implemented features

##### Second Internship

- Planned a data processing pipeline used to quickly productionize ML workflows from scratch and built a minimum viable product in 12 weeks
- The pipeline delivered predicted attributes for engineers and data scientists to use in other features
- My design leverages Azure DataBricks to give data scientist powerful libraries through PySpark, while enabling distributed computation for their models
- The design focused on easy onboarding and configuration of ML models
- Worked with a data scientist and manipulated unbalanced data in Python to onboard the first ML model onto the platform
- Improved the efficiency of data scientists, allowing them to easily deliver timely predictions and scheduling the retraining of models

### Software Development Engineer Intern

#### Amazon Web Services

📅 06/2018 – 09/2018 📍 Seattle, WA

- Designed a control plane and system of records with a focus on scalability and maintainability
- Implemented my design with AWS Lambda, S3, APIGateway, CloudFormation, and other related services
- Ensured maintainability of the code with unit test using JUnit and Mockito
- Deployed code uniformly across varying environments using continuous deployment tools
- Overall, the project will save 10+ maintenance hours a week while improving the customers experience

### Pre-Doctoral Instructor

#### University of Washington

📅 06/2020 – 09/2020 📍 Seattle, WA

- Designed and instructed a 9 week course of data structures, algorithm analysis, parallelism, and concurrency
- Lead and organized a team of 8 teaching assistants
- Adapted course to a new remote online offering with active learning components
- Managed course infrastructure consisting of various tools like Google Compute Engine and Gitlab

## EDUCATION

### B.S. in Computer Science

#### University of Washington

📅 09/2016 – 06/2020 📍 Seattle, WA

- 3.90 Cumulative GPA
- Dean's List (All Quarters)

### M.S. in Computer Science

#### University of Washington

📅 09/2020 – Present 📍 Seattle, WA

Expected graduation: 06/2021

## COURSEWORK

- Discrete Math, Statistics, & Matrix Algebra
- Software Design & Implementation
- Data Structure & Parallelism
- Algorithms
- Systems Programming
- Data Visualization
- Data Management
- Operating Systems
- Computer Networks
- Computer Security
- Artificial Intelligence
- Machine Learning
- Deep Learning

## SKILLS & KNOWLEDGE

### Programming Languages

- Java
- C#
- Python
- JavaScript
- R
- SQL/SQL++
- C
- C++
- HTML & CSS
- YAML
- Datalog
- TypeScript

### Libraries & Frameworks

- JUnit
- Lombok
- Express.js
- D3.js
- Node
- Gatsby
- PyTorch
- Mockito
- Angular.js
- Knex.js
- jQuery
- React.js
- Jest
- NumPy

### Tools & Platforms

- $\LaTeX$
- AWS
- SQL Server
- GCE
- Git
- Unix CLI
- Netlify
- Postman