# Spike (Yiren) Ding

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## EDUCATION

**Ph.D. in Computer Science**                                                                                        Aug. 2019 – Current
Worcester Polytechnic Institute (WPI), Worcester,
Advisor: Lane Harrison, Research Focus: Data Visualization, GPA: 3.9/4.0

**Master of Science in Computer Science**                                                            Jan. 2017 – May. 2019
Northeastern University, Boston, GPA: 3.7/4.0

## SKILLS

**Programming Languages:** *JavaScript, TypeScript, Java, C#, R*
**Frameworks & Libraries:** *React, Angular, D3.js, Material UI, Mantine, Spring Boot, Node.js, Webpack, Vite, Jest*
**Database & Platform:** *Firebase, MongoDB, Hadoop, MySQL, Oracle, SQL Server*
**Cloud Services:** *Microsoft Azure (Azure API management, Azure functions, App service, Data factory, Cognitive search, Cosmos DB), AWS (EC2, S3, Lambda, ELB, CloudFront, CloudWatch)*

## WORK EXPERIENCE

**Software Engineer Intern**
**PayPal. Remote /San Jose**                                                            May. 2022/2023 – Aug. 2022/2023
- Designed and implemented an AI chat bot for PayPal internal app deployment platform aim to answer technique related questions automatically based on wiki. The chat bot uses TensorFlow, NLP.js and an independently developed search engine.
- Created interface and interactive visualization of payment transaction query as part of the transaction explorer tool within the payment tools framework, using D3 and React.

**Research Assistant**
**VIEW Lab, Worcester Polytechnic Institute. Worcester, MA**                                    Aug. 2019 – Current
- Architected and implemented the lab platform for building crowdsourcing experiments and generating data visualizations using React, Firebase, D3.js and Node.js.
- In charge of developing tools for real-time online experiment monitoring, automated user activity logging, and customizable data reformatting e.g.
- Researched and built innovative data visualizations via D3.js in various domains. i.e., AI assist interactive classroom observation system, racing bar chart for COVID cases, cartograms for spatial-temporal datasets.
- Designed and launched crowdsourcing experiments for modeling human's perception on different data visualization channels. Utilized multi-level Bayesian modeling to model individual differences to support personalized interface.

**Software Developer Co-op**
**Lantos Technologies.  Wilmington, MA**                                                            Aug. 2018 – Jan. 2019
- Successfully developed a cloud platform for storing, sharing, and processing 3-D digital ear scanning data.
- Developed RESTful APIs using JAVA and Spring Boot, conduct security testing and load testing.
- Used Angular 7 for frontend, Spring Boot and MySQL for backend. Used AWS EC2, CloudFront, Lambda, ELB service for auto-deploy, auto-scaling, and health check.

**Graduate Teaching Assistant**
**Northeastern University.  Boston, MA**                                                            Jan. 2018 – May. 2018
- Mentored 7 groups (28 students) to build large-scale projects. Hold sprint review sessions to guide students in designing software architecture and use CI/CD tools such as Jenkins and SonarQube.