# Nan Qin

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### **SKILLS**

Programming Languages: Java, C#, JavaScript, Python, Bash, C/C++, SQL.

Framework: ASP.NET, Entity Framework, Node.js, D3, Angular, Hadoop, Zookeeper, Apache Thrift.

Software & OS: Git & Github, Visual Studio, Intellij, Docker, Nginx, PostgreSQL, MongoDB.

Specific Skills: Cloud Development, Web Development.

## **EXPERIENCES**

Software Engineering Intern

Kabbage Inc, Atlanta, Georgia June 2019 – August 2019

- Developed C# ASP.NET backend that loaded account and transaction data from bank providers.
- Designed SQL Server database tables and manipulated provider data with Entity Framework.
- Implemented RESTful API endpoints to enable frontend to add new user bank accounts.
- Worked with senior developers and code was deployed into production environment.

Undergraduate Research Assistant

Distributed Computing Systems Group, University of Minnesota January 2018 – May 2018

- Implemented a quorum and eventual consistency models for Wiera distributed storage system.
- Developed a dynamic quorum selection mechanism that reduced latency by 30%.
- Designed Wiera metadata functions to support versioning.

#### **PROJECTS**

- 1. Linux Web-Based Monitoring (https://monitor.sousys.com)
- Used microservices architecture to develop a Linux monitoring system with Node.js and Angular.
- Implemented separate auth, data access, and permission services. RESTful APIs were used for intern-services communication.
- Employed MongoDB as the persistence layer to provide flexibility of data schema.

#### 2. PubSub Framework

- Utilized Apache Thrift Java API to construct a publish-subscribe system.
- Developed the client-side program with multithreading to improve throughput by 40%.
- Realized fault tolerance by implementing a backup server and logging.
- 3. Visualization of Ford GoBike (https://gobike.sousys.com)
- Visualized Ford GoBike dataset with D3 and Leaflet map to help the analysis of bike distribution.
- Reduced the original CSV raw data size by 80% with a dedicated JS data structure.
- Employed heatmaps and interactive bar charts to efficiently present the usage trending.

#### **EDUCATION**

Computer Science, Master of Science Georgia Institute of Technology September 2018 – Expected December 2019

Computer Science, Bachelor of Science University of Minnesota, Twins Cities September 2015 - May 2018 GPA: 3.88

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