

Kevin Y. Wang

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EDUCATION

University Of Washington, Seattle, WA

June 2023

Bachelor of Science - Computer Science GPA: 3.9 [Magna Cum Laude]

- **Relevant Coursework:** Data Structures and Parallelism, Software Design & Implementation, Intro to Algorithms, Systems Programming, Database System Internals, Computer Security, Data Visualization, Distributed Systems, Hardware/Software Interface, Introduction to Artificial Intelligence, Data Management, Interactions Programming
- **Teaching Assistant:** Facilitated weekly lessons for **20+** students on data structures, algorithms, and parallelism

EXPERIENCE

Software Development Engineer Intern | Amazon

June 2022 - September 2022

- Led the design and development of the **automation** of the Kindle Content Delivery's manual URL signing process to **improve operational workflow** and resource security supporting 10+ million downloads per day
- Developed an automatic **SigV4 & CloudFront** signing credential rotation process that automatically occurs every 90 days, **saving 6+ hours** of developer time every 90 days through **AWS Cloud Development Kit, AWS Secrets Manager, & AWS Lambda**
- Employed continuous delivery/integration, version control, **test-driven development**, and dependency management best practices, **increasing development cycle efficiency**

Software Engineer Intern | Dow Jones & Company

June 2021 - August 2021

- Built & launched a send-and-search application for the Factiva content management team utilizing **AWS S3**, which processes and saves over **100,000 files** and news stories daily
- Developed a **web UI** with **ASP.NET** which enables teams to effectively search through **700,000+ news stories**, by implementing dynamic search functionality that uses a files metadata to return relevant search results

TECHNICAL SKILLS

- **Programming Languages:** Java, Python, C, C#, SQL, JavaScript, Typescript, HTML, CSS
- **Software/Tools:** AWS: [CDK, S3, Secrets Manager, Lambda], Spring, ASP.NET, Linux, Git, Docker, React.js, Databases, MongoDB, REST

TECHNICAL PROJECTS

Distributed Key-Value Store

- Developed a **highly-available, fault-tolerant, linearizable, sharded** key-value store with **multi-key update** and **dynamic load balancing** capabilities in Java
- Implemented distributed consensus and **state machine replication** system using the **Paxos consensus algorithm**

Campus Map

- Designed a **full-stack campus map** application that enables UW students & faculty to find the **optimal path** from one building to another utilizing **Dijkstra's algorithm**
- Programmed the **graphical user interface** that renders the navigation path using **Typescript/React**, & the **Model-view-controller** architecture pattern
- Engineered the **backend using Java & Spark** that parses **6000+** lines of campus path data and exposes **API endpoints**

Relational Database

- Built a **high-performance** and **robust** relational **database management** system in Java with cache **buffer management**, **page indexing**, a **query join optimizer** and crash recovery **logging protocols**
- Completed a **lock** management system for **concurrency** control to handle 10+ clients