

Di Wu (Woody)

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- Master of Computer Science student at **Rice University**, Graduating **Dec. 2022**
- Bachelor of Computer Science and Math student at **Union College**, 3x Dean's Lists, Graduated Jun. 2021
- Experienced in developing scalable, data-intensive server-side software, delivering well-commented, clean and efficient code

PROFESSIONAL EXPERIENCE

BYTEDANCE | BACKEND DEVELOPER INTERN

Beijing, China | Jun. 2020 - Sep. 2020

- Increased ads feature usage by **41%** by implementing ranking evaluation algorithm via RESTful APIs
- Tracked **1000+** A/B tests' activity for Data dept. by developing a weekly mailing cron job
- Saved **64.2%** space taken by integer sequences in ads database by testing various encoding techniques
- Translated raw ads data into ads daily click rate by performing Hadoop MapReduce

UNION COLLEGE | UNDERGRADUATE THESIS

Schenectady, NY | Mar. 2020 - Mar. 2021

- Sought methods to optimize an algorithm that 3D reconstructs the images captured by RGB-D camera
- Reduced the memory size of 3D model by **12%** via designing a hashmap that only stores existing objects
- Optimized hashmap's retrievals by testing various hash functions and collision handling methods
- Minimized hashmap's collision rate by improving the hash functions for 3D coordinates

PROJECTS

URL SHORTNER SERVICE

JAVA, SPRING BOOT, REACT, BIGTABLE, GCP, AGILE

- Worked in an team of 6 to built a scalable URL shortening cloud application with user authentication
- Shortened and resolved URLs on the server-side by developing RESTful APIs
- Reduced the service response time by using protocol buffer to structure requests
- Scaled-out the server by storing URL mappings in Cloud Bigtable and deploying the service to GCP

ONE CLICK MEETING HTML/CSS/JAVASCRIPT, JQUERY, WEBRTC, MONGODB, SOCKET.IO, NODE.JS

- Developed a facetime application in a team of 4 that allows students and instructors to reach out virtually
- Improved the accessibility of the application by developing a chrome extension UI
- Completed the prototype and presented the product to HackRice11 judging committee within 36 hours

BICYCLE ROUTE PLANNER

JAVA, JFRAME, MODEL-VIEW-CONTROLLER

- Visualized the bicycle route in a text file by presenting locations as vertices and paths as edges
- Developed an UI that allows the user to plan their favourite route by highlighting paths
- Developed an export feature that allows users to download their planned path to a csv file

SNAKE GAME

REACT, JAVASCRIPT

- Enriched the game by adding a possibility of the food reversing the direction of snake

SKILLS & COURSEWORK

Languages & Frameworks: Java, C, C++, Python, Javascript, Spring Boot, React, Angular, HTML5, CSS, SQL, Shell Script, MATLAB

Tools: Linux/Unix, Vim, PostgreSQL, MongoDB, Hadoop, Spark, Docker, Kubernetes, GCP, AWS, VS Code, JetBrains, LaTeX, Git

Courses: DBMS Implementation, Computer Networks, Statistical Machine Learning, Web Development, Big Data Management