ROONEY JINGYUAN GAO

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Eligible to work in the U.S. and Canada for Summer 2022

EDUCATION

Vanderbilt University M.S. in Computer Science 05/2023

University of Toronto Hon. B.S. in Computer Science (Upper-level GPA: 3.92) 06/2021

SKILLS & AWARD

Programming Languages: Python, Java, C, JavaScript

Technologies involved: Docker, Kubernetes, SQL, Pytorch, React, Flask, Jenkins, GCP

Terminal Live by Citadel, Toronto vs Waterloo: 4th place out of 50 teams.

EXPERIENCE

University of Toronto – Research Assistant 01 – 04/2021, Toronto, ON

- Implemented the speech recognition module in a **React** app for academic English development.

Activision (Call of Duty) – Software Engineering Intern 05 – 08/2020, Toronto, ON

- Wrote scalable **distributed web services** in **Python** for major titles with **75+ million** players, deploying and troubleshooting in containerized live environments using **Docker**, **Kubernetes**, and **Jenkins**.
- Developed back-end switching with **Redis**, **Cassandra**, and future storages, reducing response time by **3-10X** in production and enabling a **50% increase** in millions of concurrent players.
- Developed APIs to send **cross-game push messages** with client authentication that is mission-critical to the new party invitation feature, collaborating with **C++** client code engineers.
- Created and executed client profilings in **massive load tests** and **capacity planning** for a major title launch.
- Shipped and debugged **C++** client code for **health-checking production environments**.

PROJECTS

TweetyPipe – real-time data processor and sentiment monitor

- Implemented a **real-time data processor** with **Spark** and **Flask** to visualize trending Twitter hashtags.
- Designed and implemented a **real-time sentiment monitor** with **Kafka**, processing 3500 Tweets per minute.
- Technologies: **Python, Spark, Kafka, Flask, Google Compute Engine, Twitter API**

YourEvents – personalized local events recommendation

- Developed an interactive website for personalized local event recommendations, using **JavaScript** and **Java**.
- Implemented a **content-based algorithm** to provide **recommendations**.
- Built a **MySQL** database to capture business data fetched from Ticketmaster API.
- Created **Java servlets** with **RESTful APIs** to handle HTTP requests and responses.
- Deployed on AWS EC2 and achieved 150 queries/second, **load tested** by **Apache JMeter**.
- Technologies: **Java, MySQL, Javascript, HTML/CSS, AWS EC2, Apache Tomcat, JMeter**