

# Kobe Guo

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## EDUCATION

### University of Illinois Urbana-Champaign

Master of Computer Science in Data Science (MCS-DS)

Champaign, IL

Expected May 2027

### Vanderbilt University

Bachelor of Science in Computer Science, Minor in Data Science

Nashville, TN

Aug. 2020 – May 2024

- **GPA: 3.42**

- Relevant Coursework: Algorithms, Data Structures, Database Management Systems, Machine Learning, Data Visualization

## EXPERIENCE

### Freelance Frontend Developer

Nov. 2023 – Present

Self-Employed

Remote

- Designed and developed responsive websites for small businesses using **React.js**, **JavaScript**, and **Bootstrap**, improving user experience and engagement.
- Optimized website performance and accessibility, resulting in **25% faster load times** and improved search engine rankings.
- Attracted over **1,000 monthly visitors** to client websites and boosted **average session duration by 20%**, resulting in increased client revenue.

### Software Engineer Intern

June 2023 – Aug. 2023

Nourish'd

Cape Town, South Africa

- Developed a React Native app for food ordering, **increasing user engagement by 30%**, with a **50% rise in daily active users**.
- Migrated backend from **MySQL to Firebase**, improving scalability and reducing data retrieval times through real-time synchronization, **boosting backend efficiency by 25%**.

## PROJECTS

### Medical Image Segmentation with Deep Learning | *Python, TensorFlow, Keras*

[Github](#) | [View Project](#)

- Achieved a **0.87 Dice score** on bone datasets using advanced ML models and data sourced from hospitals.
- Improved model robustness and inference speed through parameter optimization and data augmentation.
- Led a multidisciplinary team, successfully completing a senior project in medical image segmentation.

### Twitter Clone | *React.js, Next.js, JavaScript, RESTful APIs, Firebase, Redux*

[Github](#) | [View Project](#)

- Engineered a real-time Twitter-like application with Next.js and React, integrating Firebase for robust user authentication and real-time data management.
- Employed Redux for reliable state management and utilized Tailwind CSS for responsive UI, enhancing the user experience.

### 2D Action RPG Game | *C++, GameMaker Studio*

[Github](#) | [View Project](#)

- Applied C++ to design a 2D action RPG with mechanics like character movement, combat system, inventory, and game state management.
- Debugged and optimized game code, conducting peer play-tests for iterative improvement on game balance and player experience.

## TECHNICAL SKILLS

**Programming Languages:** Python, JavaScript, C++, SQL, HTML/CSS

**Frameworks & Libraries:** React.js, Next.js, Node.js, Redux, Firebase

**Software Development:** Agile, RESTful APIs, Unit Testing, CI/CD, Object-Oriented Programming

**Developer Tools:** Git, GitHub, Visual Studio Code, MySQL