

Justin He

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EDUCATION

University of California, Los Angeles (UCLA) <i>B.S. in Computer Science, B.S. in Applied Mathematics</i>	Sep. 2020 – Mar. 2024 <i>Los Angeles, CA</i>
<ul style="list-style-type: none">• GPA: 4.0/4.0; <i>summa cum laude</i>; Phi Beta Kappa• Activities: Grader for Programming Languages, Databases; Leadership for Upsilon Pi Epsilon	

EXPERIENCE

Software Engineer <i>Meta</i>	Apr. 2024 – Present <i>New York, NY</i>
<ul style="list-style-type: none">• Facebook Scam & Trust; Lead for ML and ML infrastructure for scam detection on FB Dating Integrity• Own E2E development and training of scam detection models, driving collaboration across Eng, DS, and PMs to research scam trends and develop new features. Reduced scam view prevalence by 70% with model improvements• Designed and re-built model deployment/serving infrastructure handling O(100 million) users daily to leverage multi-layered caching, batching, and rate limiting. Resulted in \$200k/yr saved in compute costs and reduced deployment time from O(days) to O(minutes)• Led cross-team collaboration with 12 engineers to design and execute multi-half roadmap for FB-wide integrity infrastructure unification, with the goal of improved reliability and maintainability across all FB integrity services	
Software Engineer Intern <i>Citadel Securities</i>	Jun. 2023 – Aug. 2023 <i>New York, NY</i>
<ul style="list-style-type: none">• Trading Ecosystem, focused on optimizing trading infrastructure performance• Built services to trace executions across order infrastructure for error detection & correction, reducing error investigation time from O(hours) to O(seconds)• Wrote internal library for streaming Kafka messages to q/kdb+, improving data throughput by 1.5x• Developed infrastructure to simulate loads of 100k+ orders for trade booking system to stress test and benchmark latency and reliability	
Software Engineer Intern <i>Meta</i>	Jun. 2022 – Sep. 2022 <i>Menlo Park, CA</i>
<ul style="list-style-type: none">• Instagram Demand & Efficiency Management, focused on improving Instagram's backend power efficiency• Led cross-team project to develop a system to measure engagement change per kW used of potential new features• Built dashboard to manage power consumption across 25 Instagram services and 500k+ servers• Developed algorithm to triage power regressions to launches by correlating launch data with power time series data	
Software Engineer Intern <i>Fwaygo</i>	Jun. 2021 – Sep. 2021 <i>Los Angeles, CA</i>
<ul style="list-style-type: none">• Developed microservices in Go for user/song data processing, report handling, and server-to-client messaging• Utilized RabbitMQ to facilitate interservice pub/sub communication between Docker container clusters on GKE• Created GraphQL APIs for user/song queries & mutations and integrated them into a React Native frontend	

PROJECTS

GNN Integration to Knowledge Graph for Nephrology QA System (Paper)	2022
<ul style="list-style-type: none">• Collaborated with two UCLA PhD students to train novel QA models for joint reasoning across language models and knowledge graph-enhanced GNNs to answer nephrology questions• Tuned GreaseLM + QA-GNN models via hyperparameters and knowledge graph configurations; Achieved 37.2% accuracy on nephrology QA tasks (SOTA at the time)• Applied mention detection, entity linking, and relation extraction using spaCy to generate a specialized knowledge graph and annotated QA dataset• Extracted and cleaned text data from 563 textbook chapters and 814 research articles about nephrology	

TECHNICAL SKILLS

Languages: Python, C++, SQL, PHP, JavaScript, Go, Java, Bash

Libraries: PyTorch, NumPy, Pandas, Matplotlib, React, Node, Express, GraphQL

Technologies: Git, Docker, Makefile, Google Cloud, AWS, Firebase, MySQL, PostgreSQL