

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 KappaActivities: 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, focused on detecting and preventing fraudulent activity on Facebook	
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 performanceBuilt 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 1.5xDeveloped 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 efficiencyLed cross-team project to develop a system to measure engagement change per kW used of potential new featuresBuilt dashboard to manage power consumption across 25 Instagram services and 500k+ serversDeveloped 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 messagingUtilized RabbitMQ to facilitate interservice pub/sub communication between Docker container clusters on GKECreated 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 questionsTuned 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 datasetExtracted 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