# Justin He

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## Education

**University of California, Los Angeles (UCLA)** Sep. 2020 – Mar. 2024
*B.S. in Computer Science, B.S. in Applied Mathematics* *Los Angeles, CA*

- GPA: 4.0/4.0; *summa cum laude*; Phi Beta Kappa
- Activities: Grader for Programming Languages, Databases; Leadership for Upsilon Pi Epsilon

## Experience

**Software Engineer** Apr. 2024 – Present
*Meta* *New York, NY*

- Facebook Scam & Trust; Tech lead for ML modeling/infrastructure for scam detection on FB Dating Integrity
- Owned end-to-end development and training of production ML models for scam detection, spanning scam trend research, feature engineering, offline evaluation, and online inference; reduced scam view prevalence by 70%
- Re-architected model-serving infrastructure handling 150M+ daily users, introducing caching, batching, and rate limiting to cut direct inference volume by 98%, reduce compute spend by $200k/yr, and enable multi-model serving
- Led technical design and implementation of a core user-facing trust feature, driving alignment across 18 cross-functional partners; achieved 20% adoption in 30 days and laid the foundation for an org-wide trust initiative
- Defined and executed a multi-half roadmap with 12 engineers to unify Facebook-wide integrity infrastructure, reducing system fragmentation and improving reliability, observability, and long-term maintainability

**Software Engineer Intern** Jun. 2023 – Aug. 2023
*Citadel Securities* *New York, NY*

- Trading Ecosystem, focused on optimizing trading infrastructure performance
- Built distributed tracing services across order execution infrastructure to enable real-time error detection and correction, cutting investigation time from hours to seconds
- Developed an internal library for streaming Kafka data to q/kdb+, improving data throughput by 1.5x
- Built load-testing infrastructure to simulate 100k+ concurrent orders to benchmark trade booking system latency and failure modes under stress

**Software Engineer Intern** Jun. 2022 – Sep. 2022
*Meta* *Menlo Park, CA*

- Instagram Demand & Efficiency Management, focused on improving Instagram's backend power efficiency
- Led cross-team project to develop a system measuring engagement change per kilowatt used for proposed features
- Built power monitoring dashboard covering 25 services and 500K+ servers, centralizing visibility for energy usage
- Developed algorithm to triage power regressions to launches by correlating launch data with power time-series data

**Software Engineer Intern** Jun. 2021 – Sep. 2021
*Fwaygo* *Los Angeles, CA*

- 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

## Research

**GNN Integration to Knowledge Graph for Nephrology QA System** (Paper) 2022

- Collaborated with two UCLA PhD students to train novel QA models enabling joint reasoning across language models and knowledge graph-enhanced GNNs for nephrology question answering
- Tuned GreaseLM + QA-GNN models through hyperparameter optimization and knowledge graph configurations, achieving 37.2% accuracy on nephrology QA tasks (state-of-the-art at the time)
- Applied mention detection, entity linking, and relation extraction using spaCy to construct a domain-specific knowledge graph and annotated QA dataset
- Extracted and cleaned data from 563 textbook chapters and 814 papers to build high-quality nephrology corpus

## Technical Skills

**Languages**: Python, C++, SQL, PHP, JavaScript, Go, Java, Bash
**Libraries**: PyTorch, NumPy, Pandas, Matplotlib, React, Node, Express, GraphQL
**Technologies**: Git, Docker, Google Cloud, AWS, Firebase, MySQL, PostgreSQL