Jake Podell

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Experience

Citadel Securities LLC.   **React, C++, Python, Kdb+**   **Aug 2021 - Present**
Frontend-Focused Full-Stack Engineer, Options
-   Architected and owned a suite of real-time trading UIs and infrastructure powering high-volume market data visualization, risk management, and strategy execution for 250+ traders across the options trading org
-   Cut end-to-end market data rendering latency by 90%, enabling sub-100ms visualization of high-volume live data
-   Built a risk management platform for live position tracking and scenario analysis; drove cross-org adoption to standardize firm-wide risk tooling
-   Coordinated multiple engineering and trading teams across US and Sydney, extending backend and frontend systems to enable a novel international ADR trading strategy
-   Enabled consolidation of 11 forked workflow engine instances into a single service by designing a JWT-based entitlement system to enforce information barrier controls
-   Built a full-stack platform aggregating live debugging service endpoints, leveraging IPC to surface context-aware system state, reducing endpoint access time from 30s to under 1s
-   Built a C++ proxy service to broker volatility surface promotions between a single UI and many horizontally-sharded backends, validating shard health and routing messages to appropriate shards with queued response aggregation
-   Eliminated dependency on backend team resourcing by building kdb+/q CEPs that aggregate and filter trading engine parameters (100+ per listed option) for real-time UI streaming
-   Reduced operational risk by building Bloomberg and ICE chat parsers that automatically ingest RFQs into internal trading systems, eliminating manual order entry and reducing errors
-   Integrated AI code review and test generation into CI/CD pipeline, achieving 80% code coverage across the codebase
-   Managed intern development of a scenario visualization tool; deployed to production for daily risk limit monitoring
-   Eliminated dependency on our unsupported legacy C# infrastructure by rebuilding the semi-systematic engine parameter management platform on a modern React and C++ stack

Meta Inc.   **React, Hack, Python, React Native**   **July 2019 - Aug 2021**
Frontend Software Developer, Core Data Science
-   Led UI development for Meta's Adaptive Experimentation platform, translating data science research on Bayesian optimization and Gaussian processes into accessible experimentation tools used across the company
-   Implemented Facebook's internal integration with the Ax open source library for sequential field experiments; achieved a 52% year-over-year increase in product usage
-   Drove increased adoption of our team's core product by building a dedicated web UI to visualize experiment results, and redesigned result rendering in Python notebooks
-   Developed a recommendation system for field experiment allocation, improving statistical power and reducing experiment runtime across the company

Education & Awards

Cornell Engineering   **May 2019**
-   Major: Computer Science | Magna Cum Laude | GPA: 3.75
-   Second in overall competition: Student Unmanned Air Systems Competition

Technical Skills

Primary: React, TypeScript, C++, Python, HTML, CSS, Kdb+/q, SQL
Familiar: Java, React Native, PHP/Hack, Objective-C, Swift, Bash, OCaml

Interests

Snowboarding, Poker, Music, Tennis, Cooking, Wine Tasting, Health and Fitness