

# Charles Tark

charlestark.com • charlestark@outlook.com • linkedin.com/in/cyt25

## EDUCATION

### **CORNELL UNIVERSITY • Bachelor of Science in Computer Science**

Minor in Information Science • Graduated May 2016

## EXPERIENCE

### **Wayfair**

#### **Senior Software Engineer** | Storefront Frontend Platforms

*Aug 2021 – Jan 2023 • Boston, MA*

- Helped identify shortcomings in existing monolith systems and championed, architected, and delivered a fully replatformed frontend for Storefront applications with Next.js, migrating relevant functionality (traffic management, auth, pixels, translations, dynamic layouts) and data dependencies into decoupled services and continuous integration pipelines via Turborepo with 0% downtime, improving customer and developer experience as well as application performance, while interfacing with and providing feedback back to Next.js/Vercel developers.
- Planned and conducted Wayfair's first Next.js live 100% customer traffic load test via Wayfair Category pages by addressing launch blockers and mitigating risk factors while coordinating with infrastructure teams, product and analytics, enabling stakeholder teams to validate features and inventory tracking data, enabling full launch.
- Created and standardized new essential libraries and patterns for frontend functionality in the Next.js + webpack replatformed space, including new Scribe 2.0 customer/event tracking interfaces, which were used by engineers across the company developing apps in the new platform, granting product analysts greater visibility into customer journeys across replatformed applications and environments.
- Created and maintained new monitoring and dashboards for new Next.js application, improving developer and stakeholder clarity and confidence in platform stability, minimizing incidents and manual monitoring efforts, including platform and environment-nuanced performance tracking, error tracking, and Kubernetes deployment statuses.
- Implemented Product Quickview feature, resulting in 3.88% add to cart rate, \$1MM monthly wins.
- Standardized Next.js best practices through company-wide presentations, documentation, and engineer mentorship.

#### **Software Engineer II** | Product Details

*Aug 2018 – Aug 2021 • Boston, MA*

- Promoted widespread performance culture as domain expert and lead for performance; developed key documentation, guidelines and SLAs; educated other members of the team, e.g. product, engineering, analytics.
- Optimized product pages performance through progressive content loading using intentional data and bundle loading patterns to improve RUM metrics by 20%, leading to 0.57% lift in add to cart rate and 3.56% increase in conversion.
- Identified and addressed performance risks and regressions due to feature rollouts, page redesigns; resulted in all-year-best (52 week low) for performance metrics, surpassing competitors' load times by 13%.
- Improved user experience by eliminating disruptive browser reflow by implementing APIs and best practices to enable frontend teams across the organization to create skeleton-state loading flows.
- Guided new engineers as a Wayfair Labs mentor, onboarding, reviewing, and promoting engineering best practices.
- Core contributor to greenfield webpack Product Details frontend decoupling initiative, restructuring the frontend application (from pre-existing monolith) into separately maintainable, deployable apps/libraries running in Kubernetes.

#### **Software Engineer** | User Generated Content / Product Details

*Mar 2017 – Aug 2018 • Boston, MA*

- Launched first site-wide implementation of React + Redux + GraphQL as reference to the greater organization to display customer reviews, ratings and photos on all product pages on Wayfair.com and all sister brands and geos.
- Improved customer experience by implementing features on product pages including product review search, filters and sorting, as well as the product visual options interaction flow.

**LANGUAGES** | JavaScript • TypeScript • React • Redux • GraphQL • PHP • HTML • CSS • SQL • Python • Java

**OTHER** | Next.js • Datadog • Docker • Kubernetes • Git • Grafana • Kibana • Buildkite • Turborepo • Express.js • Node.js