NICHOLAS RAY

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EXPERIENCE

Senior Software Engineer

Wikipedia (Wikimedia Foundation)

July 2018 – Present

- Developed UI components for Wikipedia's desktop and mobile sites which receive over 20 billion views a month across 300 different languages.
- Reduced visual regressions that users experienced, saved hours of manual review/testing, and increased confidence in releases to production by developing a visual regression tool.
- Enhanced user experience of desktop site by building performant scroll bolding functionality for a new table of contents that eliminated forced synchronous layouts.
- Improved desktop search experience by developing a new typeahead search component in Vue.js and TypeScript. Eliminated layout shifts that occurred when lazy loading/client rendering the component.
- Prevented performance regressions of the desktop search component by introducing synthetic test telemetry to measure its rendering performance automatically.
- Optimized desktop site's article readability, accessibility, and performance by refactoring the DOM and developing a new limited-width layout to support a shorter line length.
- Onboarded new staff member by being their "Onboarding Buddy". Increased productivity and helped them navigate blockers by meeting with them weekly for their first eight months.
- Reduced onboarding friction by developing a "quick start" repo that helped new developers acquire the necessary skins, extensions, seed data, and configuration to push to production within their first week.
- Skills and technologies: TypeScript, JavaScript, Jest, HTML, CSS, LESS, Docker, PHP, Node.js, Puppeteer, Vue.js.

Software Engineer

UpWell (formerly Alliance Health)

August 2014 – April 2018

- Engineered a multithreaded shipment service using Java that emitted RabbitMQ messages with each new shipment and featured a RESTful API.
- Saved over \$100,000 / year and improved stability of business-critical services by leading a migration process to move apps from Pivotal Cloud Foundry platform to the Elastic Container Service platform.
- Improved stability and code quality of a React-powered real-time leaderboard single-page application through heavy refactoring.
- Skills and technologies: React, JavaScript, HTML, CSS, Docker, PHP, Java, Ruby, Kotlin, Go.

PROJECTS

- <u>nray.dev</u> (2022). Personal site and technical blog I developed using TypeScript, React, Next.js, and Tailwind CSS.
- <u>Jank</u> (2019). An interactive slideshow about front-end rendering performance I built using React and presented to my team at Wikipedia.
- OutTraverse (2017). A blog about my outdoor adventures powered by a custom-built Node.js static site generator that parsed markdown and compiled it to HTML and PDF formats, resized images into a set of responsive images, and supported extendable shortcodes. Using JavaScript, I built an interactive component that showed each trip's route and elevation profile.

EDUCATION

Eugene, OR University of Oregon

September 2012

- Bachelor of Science (Pre-med curriculum). GPA: 4.02.
- Graduated summa cum laude (top 2%). Member of Phi Beta Kappa Society.

Languages and Technologies

• JavaScript, React, TypeScript, Node.js, Jest, HTML, CSS, Docker