

NICHOLAS RAY

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EXPERIENCE

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| Senior Software Engineer | Wikipedia (Wikimedia Foundation) | July 2018 - Present |
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- 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 used IntersectionObserver to eliminate 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 desktop search 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.

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| Software Engineer | UpWell (formerly Alliance Health) | August 2014 – April 2018 |
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- 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

- nray.dev (2022). Personal site and technical blog I developed using TypeScript, React, Next.js, and Tailwind CSS.
- [Jank](#) (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

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| Eugene, OR | University of Oregon | September 2012 |
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- 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