Ryan Allen

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Summary

Software Engineer with 14+ years of experience in full-stack development, developer tooling, and designing extensible systems. Focused on delivering high-performance solutions that improve productivity and end-user experience, balancing innovation with practical implementation.

Technical Skills

- Programming Languages: Python, TypeScript, JavaScript, Java, C
- Frontend Technologies: Semantic HTML for accessibility and SEO, advanced CSS for responsive and maintainable layouts, React, Storybook, Material UI, Highcharts, Nivo, D3.js
- Backend & APIs: Django, Django REST Framework, FastAPI, Node.js
- DevOps & Infrastructure: GitHub Actions, Docker, nginx, AWS (EC2, S3, RDS, Route 53, CloudFront)

Professional Experience

Woven by Toyota | Senior Software Engineer | 2025 - 2026 (1y)

- Maintained and extended a legacy full-stack vehicle simulations experimentation system, ensuring product stability while delivering new features.
- Built a new and modern v2.0 system UI, enabling a clean migration from the legacy stack.
- Tech: TypeScript, React, Storybook, Proprietary Design System & Component Library, FastAPI GitHub Actions, Delivery Hub, BuildKite, DynamoDB, OpenCode running AWS Bedrock models (Anthropic)

Nokia Deepfield | Senior Software Engineer | 2020 - 2025 (4y, 10mo)

- Supporting a team of 15+ frontend engineers, improving tooling, workflows, and best practices for scalability and maintainability.
- Developing and maintaining a robust UI component library, embedding the design system and optimizing pixel-perfect, user-friendly interfaces.
- Building interactive chart components to support multi-dimensional data visualization for ISP/BGP traffic analysis and DDoS detection and mitigation dashboards.
- Tech: TypeScript, React, Storybook, Material UI, Highcharts, Nivo/D3.js, Playwright, GitHub Actions

Interactions LLC | Senior Software Engineer | 2019 - 2020 (1y, 3mo)

- Developed an AI-augmented customer service messaging platform, integrating early LLMs and NLP to classify and prioritize customer messages.
- Integrated with the Facebook API to facilitate real-time communication via Facebook Messenger.
- Developed AI-powered customer engagement solutions for major clients, including Ford Motor Company and Papa John's Pizza, improving customer support efficiency through response automation.
- Provided on-site Super Bowl support at Papa John's HQ, ensuring peak system stability.
- Tech: Ember.js, Node.js, MySQL, Elasticsearch, Docker Compose

Mackevision Corporation | Senior Web Developer | 2014 - 2015, 2017 - 2018 (3y)

- Member of a hand-picked R&D team, developing full-stack web applications to support a high-performance 3D rendering pipeline, including:
    - QILT (Quality Image Lookup Tool): Optimized visualization and rapid lookup of millions of 3D-rendered vehicle images for quality control, utilizing masonry image layout algorithm and keyboard navigation.
    - Material ID Library: Ensured material consistency across rendering stages via Django REST Framework and PyQt menu integrations in Maya and Nuke.
    - Aion (Project Management System): Studio-wide production tracking tool with ftrack API integration for budgeting and scheduling.
- Led the adoption of Git version control and thorough unit testing to improve code reliability.
- Tech: AngularJS, Django, Django REST Framework, PostgreSQL, React, PyQt, Docker, AWS

Service.com | Senior Web Developer | 2015 - 2017 (2y, 1mo)

- Led the planning, development, and deployment of a marketplace platform connecting homeowners and service professionals.
- Designed backend APIs supporting Android and iOS applications.
- Provided team leadership and mentorship, guiding junior developers and managing project roadmaps.
- Tech: AngularJS, Django, Django REST Framework, PostgreSQL, AWS (EC2, S3, RDS)

Coil Group | Web Developer | 2013 (8mo)

- Developed frontend interfaces with a focus on pixel-perfect design and cross-browser compatibility (supporting client systems back to IE7).
- Built a music player interface and audio/banner advertising system for a music streaming service, tracking impressions and clicks.

- Tech: HTML5, CSS3, jQuery, Django, Selenium

CareTech Solutions | Junior Web Developer | 2012-2013 (1y)

- Built frontend interfaces for DMC Hospital websites and internal intranet.
- Joined the product team to work on HIPAA-compliant R&D for the next-generation CareWorks CMS platform.
- Tech: HTML, CSS, jQuery, .NET

Education

University of Michigan - Dearborn | Bachelor of Science in Software Engineering | 2026

- Completed while working full-time as a software engineer, building on a decade of professional experience.

Macomb Community College | Associate of General Studies | 2012

Volunteer Experience

Pingree Farms | Project Coordinator (Covid-19 Response Initiative) | 2020 (4mo)

- Organized a volunteer workforce to transform a community garden into a high-output Victory Garden during the Covid-19 pandemic.
- Applied process design and operational problem-solving, coordinating an unpaid, volunteer-driven effort.
- Developed workflow processes for planting, maintenance, and harvesting across 5 acres of crops.
- Partnered with Focus: HOPE to distribute fresh produce to Detroit families.

Django Girls | Event Organizer | *2015 (7mo)*

- Planned and hosted a programming workshop introducing women to software development using the Django web framework.