





WESLEY PIPER

PRODUCT ENGINEER

 wes.piper@gmail.com

 402.981.0715

 Stafford County, VA

 [Linkedin.com/in/WesleyPiper](https://www.linkedin.com/in/WesleyPiper)

SKILLS

Languages & Frameworks:

TypeScript, React, Next.js, Python, Node.js, HTML/CSS

AI Tools:

Claude, ChatGPT, advanced agent orchestration

Product Development:

Rapid prototyping, User research, Cross-functional collaboration, Agile methodology

Educational Technology:

Learning analytics, Accessibility standards (WCAG 2.1), Cognitive load optimization

Database:

PostgreSQL, SQL Server, MySQL

User Experience:

User research, accessibility implementation, usability testing

Performance

Code splitting, lazy loading, real-time optimization, distributed systems

SUMMARY

Product Engineer building AI that enhances learning without creating dependency. 10+ years shipping full-stack applications that real people love to use. Currently building Scribe Tree Writer, an experimental platform that transforms AI from answer-provider to thinking partner. Proven expertise in rapid prototyping, user research, and translating learning science into functional products. Deep experience with React, TypeScript, Python, and building for high-stakes environments including national elections and educational tools.

CURRENT PROJECT

SCRIBE TREE WRITER: AI AS THINKING PARTNER June 2025 - Present

Founder/Builder - demonstrates how AI should enhance human learning, not by providing shortcuts that bypass thinking, but by serving as a partner that deepens understanding through strategic questioning and productive friction.

- Built AI-powered writing platform for educators frustrated with ChatGPT
- Developed "Bounded Enhancement for Learning" framework constraining AI to Socratic questioning rather than content generation
- Built full-stack prototype using TypeScript, React, PostgreSQL, and Python to test pedagogical hypotheses
- Productive Friction: Question-only AI responses maintain student agency while providing cognitive scaffolding
- Exploring partnerships with educational institutions for pilot studies and open-sourcing framework for collaboration partners

PROFESSIONAL EXPERIENCE

SENIOR SOFTWARE ENGINEER, FULL-STACK

May 2023 - Present

PBS Distribution, Arlington, VA

Led development of enterprise Product Information Management system serving 100+ employees across departments.

Full-Stack Product Engineering:

- Architected Product Information Management system improving cross-departmental learning and knowledge sharing for 100+ employees
- Turned complex data relationships into intuitive interfaces teachers would recognize
- Shipped features that 100+ employees actually use daily
- Delivered responsive, accessible interfaces meeting enterprise standards

DevOps & Architecture:

- Automated CI/CD pipeline with Azure DevOps for multi-environment deployments
- Collaborated with backend teams on RESTful API design and SQL Server integration
- Led Agile sprints and cross-functional collaboration to align technical delivery with business objectives
- Designed system architecture

WESLEY PIPER

EDUCATION

B.S.
Digital Design & Development
Creighton University
2013

M.A.
English
Queen's University Belfast
2009

B.A.
English
Creighton University
2006

PORTFOLIO

<https://wespiper.dev>

PROFESSIONAL EXPERIENCE continued

SOFTWARE ENGINEER - WEB DEVELOPMENT August 2021 - May 2023
Foreign Policy Magazine, Washington, DC
Enhanced publication platform serving hundreds of thousands of global readers, focusing on performance, engagement, and storytelling through technology.

- Increased subscriptions 40% through complete rebuild of subscription services using React, Angular, and RESTful APIs, demonstrating direct revenue impact
- Improved user retention 25% by redesigning onboarding experience with data-driven UX optimizations and A/B testing
- Built interactive data visualizations using JavaScript, GSAP, and advanced CSS/SCSS to make complex geopolitical content accessible and engaging
- Led accessibility compliance project implementing WCAG 2.1 AA-AAA standards, ensuring content reached the widest possible audience
- Optimized site performance for global audience, reducing load times by 35% through lazy loading and CDN optimization

SENIOR SOFTWARE ENGINEER - WEB DEVELOPMENT January 2021 - July 2021
Rule29 Creative, Omaha, NE
Managed web development for enterprise clients including Converse and Invesco as solo developer.

- Delivered high-traffic marketing campaigns using Google Cloud Platform, Node.js, and modern CI/CD practices
- Built custom CMS solutions with WordPress, PHP, Vue, handling concurrent projects for Fortune 500 clients
- Established Agile development processes across business units, improving project delivery efficiency

Note: Rule29 acquired Oxide Design Co in January 2021

LEAD SOFTWARE ENGINEER September 2016 - December 2020
Oxide Design Co, Omaha, NE
Specialized in secure government systems and civic technology alongside Fortune 500 enterprise development.

ElectionGuard Secure Voting System (Microsoft Partnership):

- Built accessible interfaces meeting highest federal security standards using React, TypeScript, and RESTful APIs. Required working with state election officials, and security auditors.
- Researched accessibility requirements ensuring all citizens could engage with democratic process
- Designed fail-safe UI preventing user errors in high-stakes environment

Enterprise Development:

- Kiewit Corporation: Architected global intranet serving 50,000+ employees with distributed infrastructure
- Built secure platforms for Fortune 500 clients requiring SOC 2 compliance

SOFTWARE ENGINEER - WEB DEVELOPMENT August 2015 - August 2016
SKAR Advertising

SELF-EMPLOYED WEB CONSULTANT December 2013 - August 2015

ACADEMIC PUBLISHING 2007 - 2012
Various positions - University of Nebraska Press and Creighton University Press
Worked in research-based publishing to assist academic and trade publications. From cognitive science research to Nobel Laureates.