

# Andreas Sander, Senior Frontend Developer

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## Professional Summary

Senior Frontend Developer with 9+ years of experience building scalable web applications. Specialized in React ecosystems and modern JavaScript, with a proven track record of developing AI-powered research platforms serving the global academic community. Strong focus on performance optimization, accessible UI components, and data visualization.

## Employment History

since 01/2016

### Senior Frontend Developer, Digital Science GmbH

Leading frontend development for Dimensions.ai, a comprehensive research intelligence platform serving researchers and institutions worldwide.

#### Key Responsibilities & Achievements:

- Architected and maintained the React-based frontend application, ensuring scalability for millions of research publications and grants data
- Developed and maintained a proprietary UI component library and data visualization framework used across multiple product teams
- Implemented performance optimizations improving Core Web Vitals scores and reducing initial load times
- Collaborated with Python backend teams and data scientists to integrate AI-powered features and complex data queries
- Established frontend best practices, code review processes, and testing standards
- Mentored junior developers and conducted technical interviews

**Tech Stack:** React, TypeScript, Redux/TanStack Query, Python integration, Storybook, Jest, WCAG accessibility

03/2012 – 12/2015

### Frontend Developer, Moltomedia GmbH & Co. KG

Developed and maintained e-commerce platforms and corporate websites for B2B and B2C clients across Europe.




#### Key Responsibilities & Achievements:

- Built responsive, accessible frontends for Typo3 CMS and Magento shop systems
- Developed custom PHP applications on LAMP stack with focus on frontend performance
- Implemented cross-browser compatible solutions and progressive enhancement strategies
- Collaborated directly with clients for requirements gathering and technical consulting




**Tech Stack:** PHP, JavaScript, jQuery, HTML5/CSS3, Typo3, Magento, MySQL

## Employment History (continued)

### Assistant (HiWi) jobs



- 01/2012 – 03/2012  **Centre for e-Learning Technology (CeLTech), iOS Developer** Collaborated with the development team to integrate new educational services and optimize the user experience within the mobile learning platform.
- 10/2011 – 12/2011  **Villeroy & Boch AG, Social Media Team** Managed daily social content scheduling and community engagement to support brand campaigns and report on performance.
- 08/2009 – 12/2011  **DFKI (ActiveMath Group)** Integrated new learning materials from various formats into the ActiveMath platform, including necessary metadata tagging for adaptive use and system compatibility.

## Education

- 2010–2012  **Master of Science (1.5), Saarland University**  
Thesis title: *Konzeption & Entwicklung eines standardisierten Datenbankmodells für mobile Konferenz-Applikationen.*
- 2009–2010  **Bachelor of Science (2.8), Saarland University**  
Thesis title: *A Wizard of Oz Experiment to study Error Detection and Correction Competencies.*
- 2004–2009  **Teacher Training Program (Mathematics & Computer Science), Saarland University**  
*Transferred to B.Sc./M.Sc. program in 2009*

## Research Publications






### Conference Proceedings

-  1 E. Melis, A. Sander, and D. Tsovaltzi, “How to support meta-cognitive skills for finding and correcting errors?” In *Cognitive and Metacognitive Educational Systems, Papers from the 2010 AAAI Fall Symposium, Arlington, Virginia, USA, November 11-13, 2010*, ser. AAAI Technical Report, vol. FS-10-01, AAAI, 2010.  
 URL: <https://cdn.aaai.org/ocs/2179/2179-9462-1-PB.pdf>




## Skills

Languages  **German:** Native **English:** Fluent (professional working proficiency)

## Technical Skills




- Languages  TypeScript, JavaScript (ES6+), HTML5, CSS3, Python (integration), PHP
- Frameworks & Libraries  React (advanced), React Router, TanStack Query, Redux
- UI & Styling  Radix UI, TailwindCSS, Styled Components, CSS-in-JS
- Testing  Jest, React Testing Library, Unit & Integration Testing
- Tools  Storybook, Git, npm/yarn, Webpack/Vite, ESLint, Prettier

## Specialized Knowledge

- Data Visualization  Custom dashboard components, charting libraries like Highcharts or ECharts
- Accessibility  WCAG compliance, semantic HTML, ARIA patterns
- Web Performance  Core Web Vitals optimization, code splitting, lazy loading

## Volunteer Work

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- 2016-2024  **CoderDojo Saar Organizer**, Organizing with another person a monthly coderdojo.
- 2017-2021  **WebWorkerSaar Organizer**, Organizing a local developer meetup in Saarbrücken.
- 2010-2014  **SaarCamp Organizer**, Organizing a local barcamp in Saarbrücken with a small team of people.