Lukas Maximilian Masopust

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SKILLS

Web Specific

Frameworks & Languages
React & Next, TS & JS, Tailwind

CMS
Sanity, Wordpress

Hosting
AWS, Vercel

Wireframing & Design
Figma, Sketch, Illustrator

Component Libraries
Headless UI, Next UI, MUI

General

Visualization
D3, DeckGL

Familiar Languages
Python, Java, C++

EDUCATION

University of California, Davis

MSc in Computer Science
graduated 2022

Vienna Technical University

BSc in Computer Science
graduated 2019

SPOKEN LANGUAGES

German [mother tongue]

English [native]

Spanish [beginner]

SUMMARY

As an engineer by training and designer at heart, I bring a unique blend of technical expertise and creative vision to the table. With a background in data visualization research, I've led successful web development projects at AIFS, the most prominent AI institute in the agriculture space. I'm driven by a passion for visual communication, crafting joyful and effective visual artifacts across digital platforms.

PROFESSIONAL EXPERIENCE

Frontend Software Engineer   since 2022
AI Institute for Next Generation Food Systems (AIFS), UC Davis

- Lead design and frontend development of over 5 web platforms and applications, enhancing research outreach
- Established design processes and project management workflows
- Directed a team across multiple projects

Graduate Researcher & Teaching Assistant   2019-2022
Visualization and Interface Design Innovation Lab (VIDI), UC Davis

- Developed intuitive visual representations of high-dimensional complex data
- Researched the progression of fatigue in virtual and augmented reality [Masopust et al., 2024, DOI 10.1109/ISMAR52148.2021.00063]
- Designed and instructed a class on web graphics, covering Three.js and WebGL

Researcher & Developer   2017-2019
ImageBiopsy Lab, Vienna Austria

- Developed a web application for live assessment of knee x-rays to evaluate the progression of bone diseases
- Developed new AI models and pipeline for spine detection & measurement

SELECT PROJECTS

AIFS Website - https://aifs.ucdavis.edu
with AIFS, UC Davis

- Redesigned and reengineered our institute's website
- Established a user-centric design process, including the creation of user personas, their stories, and the derivation of functional requirements; Iterated through low and high-fidelity wireframes in close collaboration with each team
- Migrated to a modern stack, utilizing NextJS, Tailwind, and Sanity for enhanced performance and maintainability

FoodAtlas Website - https://foodatlas.ai
with AIFS, UC Davis

- Built a comprehensive food composition database for a pioneering AI initiative
- Established infrastructure for effectively displaying 140k food connections and their concentrations
- Developed custom UI components to mitigate reliance on 3rd party libraries

HexTile - see Portfolio
with VIDI, UC Davis

- Developed a VueJS frontend with a Falcon backend and Postgres database
- Utilized DeckGL to construct a multivariate visualization showcasing 20 years (2TB) of historic wildfire data
- Designed a visual encoding system to effectively communicate fire power, topography, wind, temperature, humidity, and other pertinent factors
- Implemented user-centric functionality tailored to firefighters, disaster management planners, and the general public