

Principal Systems Architect – ADPT (m/w/d, 80–100%)

Looking for a system problem?

We don't develop buildings.

We build a system that generates them.

With ADPT, we develop a modular system for digital, circular and scalable construction – contributing to a more cost- and resource-efficient building industry.

Your Mission

As Principal Systems Architect, you shape the core architecture of the ADPT.engine – the system logic that determines how future-proof living and working environments emerge from components, rules, typologies and contextual data. Your contribution:

- You define and evolve the system architecture and guide its implementation
- You translate architectural, structural and regulatory requirements into clear rules and decision logic
- You develop a consistent rule and constraint system
- You define search and combinatorial strategies to explore the solution space
- You define the decision logic behind valid building configurations and downstream processes – across the entire lifecycle of ADPT building blocks

You work directly at the intersection of:

Architecture & System Design

together with the Architecture Design Lead and Modular Systems Architect

Research & Software Development

in close collaboration with a leading research group in digital construction ([Chair of Computing in Civil Engineering](#), Prof. Dr. Markus König, Ruhr University Bochum)

Engineering Practice

in close collaboration with [Arup](#), as part of a development partnership focused on circular and future-ready buildings



What you bring

- Proven experience in designing complex, scalable systems or platforms
- Deep understanding of rule-based, constraint-based or generative systems
- Ability to structure complex solution spaces and to make them explorable
- Experience with interoperable systems and interfaces (APIs, BIM or similar)
- Understanding of AI and machine-learning approaches and their role within complex decision systems
- Ability to bridge across architecture, system design and software engineering
- Strong interest in shaping future-proof ways of designing and building

What makes this role unique

- You don't work on individual buildings, but on the logic that generates them
- Your work redefines how buildings are planned, built and operated
- You shape core parts of this logic from the ground up
- You join at an early stage and help shape the system architecture and its direction from the very beginning.
- You collaborate with leading engineering practice and research in digital construction
- ADPT buildings are not only designed and simulated — but actually built
- Your work contributes directly to transforming the construction industry — with immediate impact through pilot projects funded at EU, federal and regional level (e.g. the ADPT pilot project "[ZukunftsQuartier Kunstwerkerschule](#)")

Framework

Duration: minimum 16 months, with long-term perspective for the right fit

Location: Essen or Berlin and remote

Remote: flexible, depending on project phase and requirements

Compensation: salary, option for equity participation

Start: by agreement

If this role resonates, send us:

- a short profile or CV
- 2–3 projects or examples you've worked on (links + brief context)
- A short note on why you're interested in building ADPT and which system or



architectural questions interest you most

What to expect

- A short intro conversation
- 1–2 deeper technical discussions
- A conversation about terms and conditions

Interested? Reach out.

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Know someone who should work on ADPT?

Please share.

