## Max Planck Institute for Human Development - Center for Humans & Machines

The Center for Humans and Machines (CHM) at the Max-Planck-Institute for Human Development in Berlin conducts interdisciplinary science to understand, anticipate, and shape major disruptions from digital media and Artificial Intelligence (AI) to the way we think, learn, work, play, cooperate, and govern. Our goal is to understand how machines are shaping human society today and how they may continue to shape it in the future. The Center is comprised of an interdisciplinary, international, and diverse group of scholars, and a science support team. To complement this team, we are looking for a motivated Student Assistant (Junior Research Software Engineer / Developer) excited about building high-performance, real-time software systems and experimental platforms.

## Profile: 'Full-Stack Developer / Experimental Platform Developer'

In this role, you will design, engineer, and maintain scalable software platforms and experimental infrastructure to enable novel empirical studies on human-AI collaboration and interaction.

City: Berlin; Starting date (earliest): 01/01/27; Duration: at least 6 months;
Remuneration: 16,50 € (Bachelor's program), 17,17 € (Master's program)

### Tasks

- Real-Time Interactive Platforms: Develop responsive, concurrent, multi-participant experimental platforms using modern web technologies (TypeScript, React/Next.js, Python/FastAPI) and real-time protocols (WebSockets) to deliver low-latency interactions.
- Behavioral Telemetry & Logging: Design and implement robust event-logging and telemetry pipelines to capture high-resolution user behavioral metrics, interaction latencies, and state transitions for scientific analysis.
- System Reliability & Observability: Monitor, debug, and maintain research infrastructure and microservices using modern observability tools (e.g., Datadog, Sentry, ElasticSearch/Kibana).
- DevOps & Infrastructure: Build and manage containerized workflows and deployment pipelines using modern tools (Docker, Kubernetes, Cloud).

### Requirements

- Enrolled Student: Currently enrolled in a Bachelor's or Master's program at a German university in Computer Science, Software Engineering, Data Science, or a related technical discipline.
- Core Programming Skills: Strong command of Python and modern

JavaScript/TypeScript.
- Full-Stack & Backend Development: Experience with modern web frameworks (e.g., React, Next.js, FastAPI, Node.js) and relational/NoSQL databases (PostgreSQL, Redis).
- Real-Time Communication: Familiarity with WebSockets, asynchronous programming, and building event-driven state management for interactive web apps.
- Location & Presence: Weekly in-person attendance at the institute in Berlin (Dahlem).
- Availability: 15–20 hours per week.

Nice-to-Haves:

- Hands-on experience instrumenting applications with tracing/observability tools (Sentry, Datadog, ...).
- Experience with specialized experiment frameworks (e.g., oTree) or full-duplex collaborative tools.
- Experience using agentic coding tools and workflows, alongside a focus on maintaining software quality, code review standards, and system robustness when leveraging AI assistance.

**What we offer**

- Direct involvement in supporting empirical research in a globally leading research institute.
- Hands-on engineering ownership: build platforms and tools that directly power scientific studies and experiments.
- Close collaboration with an international, interdisciplinary team of researchers and developers.
- Comprehensive onboarding, modern developer workflows, and time to learn new software engineering tools.
- Premium subscriptions provided by CHM to leading agentic coding tools to enhance developer productivity.
- Duration: At least 6 months (tied to proof of enrollment, with option to extend).
- Start Date: January 2027
- Salary: Standard German student assistant rates (16,50 € / hour for Bachelor's students; 17,17 € / hour for Master's students; increasing from April 2027 to 17,27 € / hour for Bachelor's and 17,93 € / hour for Master's students, subject to TV-L / MPG guidelines).

Diversity and Inclusion: The Max Planck Society strives for gender equality and diversity. Diversity, equity, and inclusion enrich our society and foster scientific excellence. We are committed to increasing the number of women in areas in which they are underrepresented and employing more people with disabilities. We welcome applications from people who belong to groups that are often underrepresented in the workplace due to, among other factors, age, disability/chronic illness, ethnicity, gender identity, and religion. You can find out more about our commitment to diversity and the accommodations available to meet your individual needs by visiting our website: www.mpib-berlin.mpg.de/diversity.

**Application**

Please submit your CV (without photo), a link to your GitHub/portfolio or code samples, and your latest transcript of records via our career portal: https://careers.mpib-berlin.mpg.de/jobs/8697727-student-research-assistants-for-the-study-of-human-machine-interactions

Applications are reviewed on a rolling basis.
This position is open until filled, with no fixed application deadline or review date.

The selection process includes a short, clearly defined practical project taking only a few hours, followed by a presentation session where candidates present and defend their solution.

The data protection declaration for the processing of personal data within the scope of your application can be found here: https://www.mpib-berlin.mpg.de/1589569/en_infos_bewerbung.pdf.

More information at https://stellenticket.de/208610/TUB/
Offer visible until 11/12/26