Paul Wetzel
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Education

- **Technische Universität Berlin** — Berlin, Germany
  B.Sc. Electrical Engineering; GPA: 2.5; Focus on Electronics & Signal processing — *Okt. 2020 – Dec. 2024*
  - **Focus areas**: Electronics, communication system, FPGA development, signal processing
  - **Projekte & Initiativen**: RISE (web), Lead development of some electronics and software teams
  - **Thesis**: Development and implementation of a homing and calibration routine for an exoskeleton (Note: 1.0), Department of biomedical engineering: Prof. Marc Kraft

Professional employment

- **Charité - Universitätsmedizin Berlin** — Berlin, Germany
  Research fellow — *Apr. 2025 - Aktuell*
  - **Development of hard software tools for diagnosis**:
  - **Development of medical device type prototypes with with pharmaceutical companies**:
  - **Development of an EHR system for a rare disease center**: Planning of software architecture and development lead
  - **Clinical research and application**: Application of developed solutions with patients, as well as regular clinical research in neurology and rare neuromuscular diseases
- **Digital Health Accelerator at the BIH** — Berlin, Germany
  "gaitMATE" @ Digital Health Accelerator (Phase I & II) — *Feb. 2024 - Current*
  - **Technical planning**: Planning, preperation and prototyping of a novel tool for sensing disease progress in patients with a rare muscular disorder
  - **Development of a spin-off company**: Business development tasks, coordianting with external development contractors
- **Charité - Universitätsmedizin Berlin** — Berlin, Germany
  Research assistant - Software engineering (Working student (80h/month)) — *Oct. 2021 - Mar.2025*
  - **Member of the Hahn lab for rare neuromuscular disorders**:
  - **Software engineering**: Software development for applications in clinical development.

Publications

- Pernice, H.F., Knorz, A., **Wetzel, P.J.**, et.al. (2024). *Neurological affection and serum neurofilament light chain in wild type transthyretin amyloidosis. Scientific Reports*, 14(1) DOI.
- Zernikow, J., Grassow, L., Gröschel, J., Henrion, P., **Wetzel, P.J.**, Spethmann, S. (2023). *Clinical application of large language models: Does ChatGPT replace medical report formulation? An experience report. Innere Medizin*, 64(11). DOI.

Technical skills

- **Programming languages**: Good: C/C++ & Python, Basic: Java, Swift, JavaScript& Dart
  Software: SAP HANA, SAP UI5, FHIR, Git, Cloudflare, Verilog, Linux & ROS2
  Tools: KiCAD, Vivado, basic skills in Labview
  Hardware: PCB-Layout, STM32, Arduino, UART, Motor control & Soldering, Measuring, etc.

Interests & Volunteering

- **Voluntary Head of a School Theatre Technology Club ([BOSTAG](www.bostag.de)) since 2020: Youth work with around 20 students.**