Carl Luis Pöhl

Computer Science · Medicine · Clinical AI

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Computer-science graduate and **final-year medical student** pursuing **two doctorates**: **Dr. rer. medic.** (PhD equivalent, clinical AI) and **Dr. med.** (Parkinson's progression). AI venture co-founder who won and co-delivered commercial AI projects and secured four university hospitals for clinical research. Four completed first-author manuscripts in co-author review.

EDUCATION

Dr. rer. medic. (PhD equivalent) · Clinical AI · TU Dresden — Expected Q1 2027

Dr. med. · Parkinson's progression · TU Dresden — Expected Q1 2027

Medical studies (State Examination) · TU Dresden — 09/2020-present

Final exam expected December 2026. M2 good (2.0), **~top 20% nationally** (2025). TU Dresden since 10/2022, after pre-clinical studies at Semmelweis, Budapest. Rotations: Argentina, Namibia, Switzerland, Germany.

B.Sc. Computer Science · RWTH Aachen University — 10/2018-11/2024

Grade good (2.0), **part-time alongside medicine**. Mathematics very good (1.3). Business Administration minor.

Exchange Semester, Computer Science · EPFL, Lausanne, Switzerland — 09/2019-03/2020

Dual Degree Program in Technology & Management · HKUST, Hong Kong — 09/2017-10/2018

GPA 3.74/4.0, **Dean's List in both semesters**, top 10% of cohort.

EXPERIENCE

Halverd (AI Consultancy) · halverd.com · Co-founder & AI Consultant — 06/2026-present

- Won and co-delivered **AI back-office automation projects** worth **£15,000–£20,000 each**. Manage **ongoing client relationships** throughout deployment.
- Built a client's **agent infrastructure** and **evaluation framework** for post-release quality checks.

Healicus (Natural-Medicine AI Assistant) · healicus.com · Co-founder — 03/2026-present

- Built a live **deep-research AI assistant** for natural-medicine treatment recommendations, using sources including **Cochrane reviews**, with evidence grading and drug-interaction and contraindication checks.
- Set **product priorities** and coordinated the **technical and marketing teams through launch**.

ConcordAInce (AI for Cancer Treatment Decisions) · concordaince.com · Co-founder — 12/2025-present

- Built **multi-agent AI** that helps cancer specialists identify treatment options from medical guidelines, with checks for unsupported answers and clinician oversight. Kept patient data inside hospital infrastructure.
- **Led the technical team**, translating clinical advisers' input into requirements and priorities.

Dresden Exists incubator · **Y Combinator Spring 2026 interview**

Executive Committee Member · Connectome Neuroscience Society — 10/2023-10/2025

- **Co-led** neuroscience and neurosurgery seminars, workshops and conferences with **100+ attendees**.
- **Managed interdisciplinary teams** including physicians and pharmaceutical representatives.

EY, Munich · Transaction, Strategy & Execution Intern — 08/2022-09/2022

- Co-developed a client's **market-exit kick-off strategy** and prepared global execution workshops.

Bayer, Tokyo (Crop Science Division) · Data Science Intern — 02/2020-03/2020

- Built the division's first machine-learning sales-targeting model. Backtest indicated **up to ¥120M savings**. Presented the findings to the **head of the Asia-Pacific division**.

RESEARCH EXPERIENCE

PhD Candidate (Dr. rer. medic.) · Dept. of Urology, University Hospital Dresden 01/2025-present

Collaborators: Jakob Kather (Kather Lab), Lars Hilgers. Supervisors: Sherif Mehralivand, Marcus Sondermann.

- **Secured four university hospitals** for multi-site validation. **Wrote all ethics submissions** through approval. Prospective evaluation planned from Q4 2026.
- **Benchmark.** Compared **44 configurations across six AI architectures on 500 held-out cases**. Validated automated scoring against eight specialist doctors reviewing the same 50 cases.
- **Introduced a separate guideline-adherence test**, revealing that all structured AI designs tested outperformed a fine-tuned model with **99.2%** agreement with doctors.

MD Thesis (Dr. med.) · Dept. of Neurology, University Hospital Dresden 04/2025-present

- Built a model predicting Parkinson's progression patterns from **17 routine clinical scores in 409 patients**, designed to withhold uncertain predictions. Assessed outcomes in a later cohort.

AI for Pancreatic Diagnosis · DKFZ and University Hospital Heidelberg 12/2025-present

- Developed AI to distinguish pancreatic cancer, inflammation and normal tissue in pathology images: **96.8% balanced accuracy** on 475 slides in patient-level cross-validation.

Student AI Researcher · Kather Lab (EKFZ / TU Dresden) 04/2024-11/2024

- Used DNA-based AI models to distinguish **19 cancer types**, achieving 0.94 mean-class AUROC and 55.0% accuracy. Improved one model's accuracy by almost 10%.

TECHNICAL SKILLS

LLMs & agents. PyTorch · LoRA / QLoRA · vLLM · multi-agent systems · Anthropic / OpenAI SDKs.
Evaluation & safety. Inspect · DeepEval · LLM-as-judge · red-teaming · prompt-injection defence.
Biomedical ML. GigaPath · UNI2 · Virchow2 · CONCH · MIL aggregation · scikit-learn · XGBoost.
RAG & deployment. FAISS · LangChain · FastAPI · Next.js · PostgreSQL · AWS · Docker · CI/CD.

SELECTED OPEN SOURCE PROJECTS

cite-or-abstain (Python, MIT) · github.com/cl-poehl/cite-or-abstain
Clinical LLM evaluation harness for citation verification, unsupported confidence and abstention.

parkinson-subtype-predictor (Python, MIT) · parkinson-subtype-predictor.onrender.com

promotionshub (TypeScript, Next.js, live) · github.com/cl-poehl/promotionshub · promotionshub.de
Live platform for finding medical doctoral positions and reading verified supervision reviews.

SELECTED PRESENTATIONS

Poster accepted, **ESMO AI & Digital Oncology Congress**, Berlin November 2026
Invited speaker, **University of Cambridge** (Dewey Lab) September 2026
"Agreeing with the tumor board is not the same as being right."
Invited speaker, **DKFZ Heidelberg, University Hospital Basel and University of Zurich** 2026

AWARDS, TEACHING AND LANGUAGES

McKinsey Capstone Programme · HKUST Dean's List, top 10% of cohort · Porsche IT Scholarship · youngest graduate of German School Tokyo Yokohama, **at age 16**.
AI teaching for doctors · Biochemistry tutor, TU Dresden: **100+** medical students/cohort, 2023-2025.
Languages. German, Spanish and English (native) · French (fluent) · Italian (conversational) · Japanese and Mandarin (basic). Raised across Mexico, Spain, Germany, Japan and Norway.

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Munich (open to relocation)