

CÉLINE ALDENHOVEN

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RESEARCH POSITIONS

Institute for Digital Medicine, University Clinic Bonn, Germany

Researcher (Part-Time)

May – Sep 2024

I continued my research on gait analysis for patients with neuronal diseases.

AgeLab, MIT, United States

Visiting Student Researcher

Apr – Nov 2023

Designing and implementing mobile apps for older adults and their informal caregivers to support healthy longevity and aging-in-place.

Institute for Digital Medicine, University Clinic Bonn, Germany

Student Researcher

Feb – Mar 2023

Continuing the research project about “Mobile Motion Tracking for Disease Prevention and Rehabilitation” started at TUM. Gaining research experience at a clinical environment. I researched on a gait analysis test for patients with neuronal diseases.

Digital Health Group, Technical University of Munich, Germany

Student Researcher

Feb 2021 – Feb 2023

I was working on a research project on mobile motion tracking, developing iOS applications that can perform valid clinical tests for patients with neuronal diseases. This project was called “Mobile Motion Tracking for Disease Prevention and Rehabilitation”.

msg systems AG, Germany

Research Intern

Aug – Oct 2022

At msg I planned and conducted my own research project about the beauty of software architecture.

Digital Health Group, Technical University of Munich, Germany

Agile Project Manager

Oct 2020 – Feb 2021

At a university course I was leading a team of eight developers, managing the product development and vision, discussing the product with the customer and more. We were developing an iOS app that can scan your foot and recommend the suitable insole for a company called footpower.

EDUCATION

University of Oxford, United Kingdom

Doctor of Philosophy in Primary Health Care (DPhil/PhD)

Oct 2024 – Sep 2027

Research Topic: Mobile interventions for long-term post-partum cardiovascular health

Technical University of Munich & Ludwig-Maximilian University of Munich & University of Augsburg, Germany

M.Sc. Software Engineering (Elite Graduate Program) | Year-representative

Oct 2021 – Feb 2024

Thesis: Leveraging Technology for a Better Life Tomorrow: Design and Implementation of an iOS Ecosystem that Increases Safety in Older Adults' Homes and Supports their Family and Informal Caregivers

Technical University of Munich, Germany

B.Sc. Computer Science

Oct 2018 – Oct 2021

Thesis: Postural Imbalance Detection using Mobile Motion Tracking

FUNDING

Oxford Clarendon Fund Scholarship | Oxford Medical Sciences Graduate School Studentship | Scatcherd European Scholarship

Research Grant | Oct 2024 – Sep 2027

The aim of the Clarendon Fund, the University's flagship graduate scholarship scheme, is to provide full funding for graduate students who demonstrate outstanding academic merit and potential.

Link: <https://www.ox.ac.uk/clarendon>**German Academic Exchange Service (DAAD)**

Research Grant | Apr – Sep 2023

The DAAD Junior Researcher Program for Artificial Intelligence and Computer Science ("IFI – Internationale Forschungsaufenthalte für Informatiker:innen") is a highly competitive research award by the German Government.

Link: <https://www.daad.de/de/im-ausland-studieren-forschen-lehren/forschen-im-ausland/ifi/>**Max-Weber-Program**

Academic Excellence Scholarship | Apr 2023 – Mar 2024

The Max Weber Program supports the top 2% of students at Bavarian universities.

Link: <https://www.elitenetzwerk.bayern.de/start/foerderangebote/max-weber-programm>**Deutschlandstipendium**

Academic Excellence Scholarship | Oct 2022 – Mar 2023

The "Deutschlandstipendium" is an award for talented and high-achieving students.

Link: <https://www.tum.de/studium/studienfinanzierung/stipendien/stipendien-der-tum/deutschlandstipendium>**RESEARCH INTERESTS**

Digital Health | Long-Term Post-Partum Cardiovascular Health | Mobile Health | Mobile Application Development | Human-Computer-Interaction | Software Architecture

PEER REVIEWED PUBLICATIONS

- Milton, M. C., **Aldenhoven, C. M.**, Lee, C., D'Ambrosio, L., André, E. & Coughlin, J. (2024). Mobile interfaces for caregivers and older adults: Iterative design of the LifeTomorrow Ecosystem with aesthetic and functional considerations.

*** Best Paper Award Nominated**

- Aldenhoven, C. M.**, & Engelschall, R. S. (2023, March). The beauty of software architecture. In 2023 IEEE 20th International Conference on Software Architecture (ICSA) (pp. 117-128). IEEE.
- Aldenhoven, C. M.**, Reimer, L. M., & Jonas, S. M. (2022, May). mBalance: Detect Postural Imbalance with Mobile Devices. In dHealth (pp. 30-38).
- Aldenhoven, C. M.**, Brosch, D. K., Prommegger, B., & Krömer, H. (2021). Differences in Skill Requirements for Agile Workers in the German and the US IT Industries. In Innovation Through Information Systems: Volume II: A Collection of Latest Research on Technology Issues (pp. 582-595). Springer International Publishing.

PUBLISHED STUDY PROTOCOLS

1. Wong, B. W. Y., **Aldenhoven, C.**, Jones, N., Cai, T., Hobbs, R. & Sheppard, J. (2025) Safety and efficacy of SGLT2 inhibitors in patients with chronic kidney disease with or without frailty: a systematic review and meta-analysis of randomized controlled trials and observational studies. PROSPERO CRD420251000967. Available from <https://www.crd.york.ac.uk/PROSPERO/view/CRD420251000967>

AWARDS AND HONORS

Oxford Clarendon Fund Scholarship Research Grant to fully fund DPhil	Oct 2024 – Sep 2027
Oxford Medical Sciences Graduate School Studentship – Primary Health Care Studentship Research Grant to contributing to fully fund DPhil	Oct 2024 – Sep 2027
Scatcherd European Scholarship Research Grant to contributing to fully fund DPhil	Oct 2024 – Sep 2027
German Academic Exchange Service (DAAD) Fellow Research Grant	Apr – Sep 2023
Best Paper Award Nomination (IEEE International Conference on Software Architecture)	Mar 2023
Max-Weber-Program Fellow Academic Excellence Scholarship	Apr 2023 – Mar 2024
German Scholarship (“Deutschlandstipendium”) Fellow Academic Excellence Scholarship	Oct 2022 – Mar 2023

GUEST LECTURES

University College London | London, England

Digital Health Technologies for Supporting Care at Home | In lecture series “Human Factors for Digital Health” by Prof. Susanne Gaube (Assistant Professor for Digital Health Technologies) Nov 2024

University College London | London, England

Digital Systems for Supporting Care at Home | In lecture series “Human Factors for Digital Health” by Prof. Susanne Gaube (Assistant Professor for Digital Health Technologies) | Together with my colleague from MIT: Shabnam Fakhr’Hosseini Feb 2024

INVITED TALKS

Max-Weber-Program Spring Academy 2024 | Roggenburg, Germany

Building systems for older adults and informal caregivers | For the “Grandma alone at home” seminar Feb 2024

Massachusetts Institute of Technology | Cambridge, USA

LifeTomorrow – Supporting Older Adults with Self-Determined Aging-in-Place | For the MIT AgeLab 85+ Lifestyle Leaders Seminar Series Nov 2023

Elite Graduate Program in Software Engineering: Technical University of Munich, Ludwig-Maximilian-University of Munich, University of Augsburg | virtual

Graduation speech as year representative Nov 2023

CONFERENCE PRESENTATIONS

20th IEEE International Conference on Software Architecture (ICSA) | L’Aquila, Italy

The beauty of software architecture | Best Paper Award Nomination | **Aldenhoven, C. M.**, & Engelschall, R. S. Mar 2023

16th Annual Conference on Health Informatics meets Digital Health (dHealth) |

Vienna, Austria

mBalance: Detect Postural Imbalance with Mobile Devices | **Aldenhoven, C. M.**, Reimer, L. M., & Jonas, S. M. May 2022

16th International Conference on “Wirtschaftsinformatik” (WI) | virtual conference
 Differences in Skill Requirements for Agile Workers in the German and the US IT Industries
 | **Aldenhoven, C. M.**, Brosch, D. K., Prommegger, B., & Krcmar, H.

Mar 2021

TEACHING

Technical University of Munich

Prepared and held two lectures concerning software architecture for iOS Applications |

Instructors: Prof. Brügge, Lara Marie Reimer, Paul Schmiedmayer

Winter Semester 2020/21

ADDITIONAL TRAINING AND CERTIFICATES

Statistical Methods for Risk Prediction and Prognostic Models

Short Course at the University of Birmingham

Mar 2025

Certified Mental Health First Aider (MHFA)

For the Department of Primary Care Health Sciences – University of Oxford

2025 – 2028

Big Data Epidemiology

Short Course at the University of Oxford

Nov 2024

Academy for Political Education in Tutzing

Seminar on “The energy transition – how can everyone actively participate?”

Mar 2024

Max-Weber-Program Spring Academy 2024

Seminar on “Being present, stress management and transformative learning”

Feb 2024

Bavarian EliteAcademy

Leadership and Responsibility | 22. Cohort | Link: <https://www.eliteakademie.de>

2020 – 2023

Social and Behavioral Research Investigators

CITI Program done at MIT | Certificate ID: 55236904

Apr 2023

DISCOVER – Leadership Training Through Arts

Link: <https://www.kulturkreis.eu/kulturkreis-stipendien/discover-leadership-training-through-arts>

Jun 2022

Patent Law

Hasso-Plattner-Institute MOOC

Apr 2019

Certified SOLIDWORKS Associate in Mechanical Design

A certification by Dassault Systèmes

Apr 2016

ONLINE ARTICLES AND BLOG POSTS

University of Oxford – Nuffield Department of Primary Care Health Sciences

Departmental Mental Health First Aiders | Link: <https://www.phc.ox.ac.uk/hr-and-personal-development/mental-health-first-aiders-1>

Feb 2025

MIT Agelab Blog Post

“Leveraging technology for a better life tomorrow” by **Céline Aldenhoven** | Link: <https://agelab.mit.edu/caregiving-and-well-being/blog/leveraging-technology-better-life-tomorrow/>

Jun 2023

MIT Agelab Blog Post

“AgeLab Welcomes Students Céline Aldenhoven and Evelyn Schneider from German Universities” by Adam Felts | Link: <https://dev--mit-agelab.netlify.app/blog/agelab-welcomes-students-celine-aldenhoven-evelyn-schneidrr>

May 2023

Elite Network of Bavaria – Research Insights

“Research Project: The Beauty of Software-Architecture” by **Céline Aldenhoven** (original article in German) | Link:
https://www.elitenetzwerk.bayern.de/fileadmin/user_upload/Forschungsprojekt_Aldenhoven_Neu_2.pdf

Sep 2022

SERVICE

Member of the Selection Process

Bavarian EliteAcademy | Grading applications and feedbacking assessment center participants

since 2023

Organizing Member – Women in Computer Science @ TUM

Technical University of Munich | Educational and Support Network for Women

Jan 2019 – Sep 2021

MINGA Mentor

Technical University of Munich | Mentoring Program for Foreign Students

Mar – Oct 2020, Aug 2021 – Mar 2022

Volunteer

Streetkids International e.V. | Orphanage and Montessori School | Tanzania

Jul 2018

Volunteer (Visiting Service)

Retirement Home St. Martin | Munich, Germany

Jan – Mar 2018

MEMBERSHIP

Oxford Department of Primary Care Health Sciences – Departmental Strategic

Review 2025 - 2030: Data Working Group with Co-Chairs Aziz Sheikh (Head of the Department) and Nerys Astbury

2025

The Friends and Supporters Foundation of the “Deutsches Museum” (Science Museum)

2022 - 2024

Elite Network of Bavaria

2021 - 2024

Women in Computer Science at the Technical University of Munich

2019 – 2021

SKILLS

Programming Languages:

- Mobile Development: Swift (Advanced), React Native, Flutter, Javascript, CSS
- Data Analysis and Databases: SQL, Python, Stata, C, C++, Spark, X-Query, XML
- Other: Java, Haskell, x86 Assembly

Analysis: Quantitative analysis, **big data**, **electronic health records**, qualitative text analysis, user experiments, algorithm development

Updated for the Hong Kong Laureate Forum, Mar 2025