

# Ayush Mani Nepal



## PROFILE

Software and Tech enthusiast with a passion for problem-solving is seeking a new opportunity

## CONTACT

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## PERSONAL INFO

BIRTH YEAR: 1990  
NATIONALITY: Nepali  
MARTIAL STATUS: Married, 1 Child  
LANGUAGES:  
◇ German (Business fluent)  
◇ English (Business fluent)  
◇ Nepali (Mother-tongue)

## MAIN COMPETENCIES

- ◇ Team-spirit, Communication
- ◇ Software (Design, Architecture, Development, Operation)
- ◇ SW-Documentation (Concept, Architecture, Detailed Design)
- ◇ Agile, SOLID, Clean-Code
- ◇ C++, Java, C#, Python
- ◇ SW-Model, MBSE, MDD
- ◇ UML, XText, Xtend, Code-gen

## TECHNICAL KNOW-HOW

- ◇ Linux, Windows, Android
- ◇ Git, Git-lab, SVN, CI/CD
- ◇ MVC, MVVC, Observer, MPI, etc.
- ◇ Testing, Test Automation, TDD
- ◇ Deep Learning, PyTorch, CUDA
- ◇ Java-script, HTML, CSS
- ◇ Database, SQL, Container
- ◇ Azure, JIRA, Confluence

## HOBBIES

Music, Traveling, Hiking

## PROFESSIONAL EXPERIENCES

**SENIOR SOFTWARE ENGINEER FULL-STACK**  
IAV GmbH

June 2023 — Now  
Gifhorn, Germany

- Middleware Software Development for a Radio-Tuner in C++
- Responsible for the development of station linking and listing features

**R&D SCIENTIST**

German Aerospace Center (DLR)

June 2019 — May 2023  
Braunschweig, Germany

- R&D of AI toolsets for their applications in space systems
- R&D of MBSE toolsets to facilitate model-driven development of the flight software for various space missions
- Contributed to Tasking Modeling Language (TML), an open-source MBSE tool for model-based software development
- Supervised students in their thesis projects and internships

**STUDENT JOB**

German Aerospace Center (DLR)

Mai 2017 — April 2019  
Braunschweig, Germany

- Model-based system engineering for space systems

**ELECTRICAL AND IT ENGINEER**

Airbus Defence and Space (extern)

April 2015 — Sep 2016  
Immenstaad, Germany

- Designed and developed test-automation framework to test the Off-Board Map Preparation System for fighter planes
- Automated thousands of software and system test-cases using the self-developed framework

**ENGINEERING CONSULTANT**  
ALTEN GmbH

Nov 2014 — March 2015  
Munich, Germany

- Front-end development in WPF/C# for the Building-automation

**INTERNSHIP**

Airbus Defence and Space

Aug 2014 — Oct 2014  
Immenstaad, Germany

- Analyzed the feasibility of the test-automation in the given context

**STUDENT JOB**

Airbus Defence and Space

Oct 2012 — Dec 2013  
Ulm, Germany

- Application development in C#/.Net and C++

## COURSES AND CERTIFICATIONS

- ◇ ISAQB CERTIFIED PROFESSIONAL FOR SOFTWARE ARCHITECTURE
- ◇ CLEAN-CODE DEVELOPER ASSOCIATE FROM CODELUTION
- ◇ SYSTEMS ENGINEERING FROM UNITY CONSULTING & INNOVATION
- ◇ PROJECT MANAGEMENT COMPACT

## STUDIES

**M.SC. COMPUTATIONAL SCIENCES IN ENGINEERING (CSE)**  
TU Braunschweig

2017 — 2019  
Braunschweig, Germany

**B.E. ELECTRICAL ENGINEERING AND INFO TECH**  
FH Ravensburg-Weingarten

2010 — 2014  
Weingarten, Germany

## PUBLICATIONS

- The BECCAL Experiment Design and Control Software
- Tasking Modeling Language: A Toolset for Model-based Engineering of Data-driven Software Systems
- Modeling and Simulation of a Spacecraft Payload Hardware Using Machine Learning Techniques
- PaTaS: Quality Assurance for Model-driven Software Development