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To,
The Selection Committee,
Technische Universität Chemnitz

Subject : Application for the Post-Doctoral Position in ailab

I was excited to see your opening for the Post-Doctoral position in the Technische Universität Chemnitz on robotics-worldwide mail-chain and I hope to be invited for an interview. My background includes my current [Postdoctoral research at Institute for Artificial Intelligence, Universitaet Bremen](#), [previous post-doc at Hochschule, Ulm](#), my Ph.D. in [Interactive Cognitive Environments from University of Genova](#) and professional experience with Intel Corporations.

Currently, I am working for [the University of Bremen](#), as a postdoctoral Researcher. We are working on Designing Semantic Digital Twin for the [Knowledge for Retail \(K4R\)](#) applications. This project includes VR Shopping, Lab Robotics, Simulation, and Cloud Development. I am actively working on cloud developments, digital twin data feed and software design to make research projects suitable for Industry applications using docker and kubernetes. I am well experienced in managing physical and remote teams, having coordinated meetings, strategy planning, and milestone preparations.

I have worked with Industrial Robotics in the [Service robotics lab, Technische Hochschule Ulm, Ulm](#). The Lab work experience was related to a framework called [SmartSoft](#) which is an umbrella term for structures, tooling, infrastructure, and software components to build robotics systems. It also includes a systematic software development methodology guided by best practices and implementations. The familiarity with Git and my contributions to Eclipse plug-ins as a part of tooling, which is in Java and web server programming.

In my Ph. D., The goal of the research was on System modeling and framework development for the Serious Games for Transportation sector. I have implemented a complete cycle form analyzing a driver for his car driving, and by vehicle signals. I have used Java OSGI for the implementation for accessing the car signals, python to analyze the data, and RESTful APIs for the server communication. I have implemented Machine Learning algorithms for Green and safe Transportation and have conducted successful tests with BMW and FIAT cars on the ASTA ZERO track in Gothenburg, Sweden, and Torino, Italy. With this practical experience, I and my team could publish 10 Scopus Indexed Publications. I have mentored my Junior PhDs and have been a key player in the [TEAM \(Tomorrow's Elastic Adaptive Mobility\) project which is funded by the European Union under FP7](#) from [the University of Genova](#).

Three years of research experience in [Intel Technology Pvt., Ltd., India](#) has given me the ability to think analytically about optimal solutions. I have solved many real-world computational problems with standardized solutions. I was into development of [Intel graphics driver](#) code for 3 years, and I can successfully debug previously written complex codes without much of a problem. My journey till now includes my experience in solving business and research problems. On one side, the business domain

solution has to be result driven, in fast deployment cycles, on the other side, the research aims to find the optimal and provable effect with technical writing. I feel I have experienced both. I have trained and led a small team of debug engineers for Graphics driver debugging.

I am having my M. Tech. Computer Science from the National Institute of Technology, Warangal, India, which is one of the precious Universities in India. This has helped me to have a theoretical understanding of algorithms, data structures, Object Oriented concepts, and Machine Learning research problems. In my opinion, the mentioned post is a good match for my skills, abilities, and interests. I do believe that my serious intention for research, my experiences, and my strong academic background, will enable me in the new responsibility at ailab, Technische Universität Chemnitz. [I wish to take more responsibility which would be a natural progression of what I have achieved so far.](#)

Thanks and Regards,
Dr. Gautam Ravindra Dange