# **Sushant Vijay Chavan**

### **Graduate student at Hochschule Bonn-Rhein-Sieg**

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## **CAREER OBJECTIVE**

Pursuing a master's degree in autonomous systems with 4+ years of professional experience in the software development industry. Seeking a student job in the field of semantic mapping/navigation and multirobot systems.

## **EXPERIENCE**

Wissenschaftliche Hilfskraft (Research Assistant) ROPOD Project, Hochschule Bonn-Rhein-Sieg

# June 2019 - April 2020

**♀** Sankt Augustin, Germany

Developed software for simulating a multi-robot fleet management system. Implemented continuous integration tests for evaluating the coordination and resource usage by the robot fleet.

#### Senior Software Engineer

## Robert Bosch Engineering and Business Solutions Private Limited

Fulfilled various roles as a C++ & 3D computer graphics developer. I was responsible for the design and development of next-gen, enhanced 3D navigation map graphics features, that are optimized to run on lowend embedded in-vehicle infotainment systems.

## **PROJECTS**

Master Thesis - Composable Ontology-based Indoor Semantic Map

#### Hochschule Bonn-Rhein-Sieg

A novel framework to flexibly transform and merge a prior collection of heterogeneous metric-semantic indoor maps, that can be used in conjunction with a knowledge-base to plan context-dependent navigation plans that allow the robot to overcome some open-challenges in indoor robot navigation.

## Comparative analysis of Experience Based Path Planning Frameworks for Multi-Robot Systems

#### Hochschule Bonn-Rhein-Sieg

December 2018 - August 2019

- We ported three experience-based planning frameworks (Lightning, Thunder, and EGraphs) to solve multi-robot path planning problems and quantitatively compared them using a custom-written benchmarking framework.
- Our goal was to evaluate the suitability of experience-based planners in the context of the ROPOD project, where a fleet of multiple robots is assigned a task to pick up and deliver several supply-carts to different locations in a hospital environment.

## **EDUCATION**

M.Sc. in Autonomous Systems Hochschule Bonn-Rhein-Sieg, Germany

April 2018 - August 2022 (expected)

Current German GPA 1.18

B.E. in Electronics and Communications

Visvesvaraya Technological University, India

m Sept 2009 - June 2013

Distinction with 82% score

## ACHIEVEMENTS



Co-authored a patent filed by Robert Bosch Engineering and Business Solutions Pvt. Ltd. India (RBEI)



Awarded the Deutschlandstipendium (Germany Scholarship) 2019/20



Awarded the Fresher Of The Year 2013 at Robert Bosch, India



Awarded the CSSS 2009 Scholarship by the Ministry of Human Resource Development (MHRD), India

## **SKILLS**

**ROS** C++ Python Classical Al Deep Learning Machine Learning OpenGL ES

# LANGUAGES

**English** Hindi

German

