Mohammad **Wasil**

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Education

Hochschule Bonn-Rhein-Sieg   *Sankt Augustin, Germany*

M.Sc. in Autonomous Systems   *Sept. 2016 - Aug. 2019*

- Mathematics for Robotics and Control, Autonomous Mobile Robot, Humanoid Robotics, Evolutionary Algorithm, Neural Networks, Machine Learning, Deep Learning, Software Development, Advance Software Technology, Learning and Adaptivity, Reinforcement Learning, Adaptive Signal Processing

Universitas Trunojoyo Madura   *Bangkalan, Indonesia*

B.Sc. in Computer Science   *Aug. 2010 - Aug. 2014*

- Mathematics, Programming (C++, Java, Matlab, Python, C, Pascal), Databases (MySQL, Oracle GlassFish), Web (PHP, JSP), Image Processing, Signal Processing, Artificial Intelligence, Fuzzy Logic, Mobile Games, Computer Graphics.

Extracurricular Activity

b-it-bots RoboCup@Work Team   *Sankt Augustin, Germany*

Active member   *Apr. 2017 - Present*

- Programmed robots using Python, C++ and Robot Operating Systems (ROS)
- Deployment of machine learning and deep learning algorithms for robotics applications
- Familiarity with robotic related libraries such as PCL library, Open3D, OpenCV
- Familiarity wih machine learning related libraries e.g. Tensorflow, scikit-learn
- Maintainer of b-it-bots open source project

SOKET (Trunojoyo Robotics Team)   *Bangkalan, Indonesia*

Member and team leader in 2013   *Jan. 2011 - Sept. 2014*

- Developed robot perception and task planning for mobile and legged firefighting robots
- Participated on several Indonesian robot competitions

Work Experience

Hochschule Bonn-Rhein-Sieg   *Sankt Augustin, Germany*

Research Assistant   *Sept. 2018 - Sept. 2019*

- JupyterHub and nbgrader deployment on Google Kubernetes engine and local university network
- Developed a hash code generator for Jupyter Notebook
- Developed an automatic bulk Linux user generator

PT. Kaber Azeze Mediatel   *Sumenep, Indonesia*

Software Engineer (Internship)   *Jan. 2013 - Mar. 2013*

- Developing and maintaining the company website and local networks

Skills

Programming

Python, C++, Java, Matlab, C, Bash

Others

Git, Github, Vim, Linux, Octomap and machine learning tools such as tensorflow, scikit-learn, pandas, seaborn

Honors & Awards

INTERNATIONAL

2019	**1st Place**, RoboCup@Work	*Sydney, Australia*
2019	**1st Place**, RoboCup@Work German Open	*Magdeburg, Germany*
2018	**2nd Place**, RoboCup@Work	*Montreal, Canada*
2018	**1st Place - Advanced Welding Test**, RoboCup@Work	*Montreal, Canada*
2018	**2nd Place**, RoboCup@Work German Open	*Magdeburg, Germany*
2018	**1st Place - Line Tracing and Arbitrary Surface Challenge**, RoboCup@Work German Open	*Magdeburg, Germany*
2017	**1st Place - Navigation and Manipulation Functionalities**, European Robotics League - Industrial Robot Tournament	*Germany and Italy*

REGIONAL

| 2014 | **2nd Place - Legged Firefighting Robot**, Indonesian Robotics Contest - Region 4 | *Malang, Indonesia* |
| 2013 | **Best Strategy - Mobile Firefighting Robot**, Indonesian Robotics Contest - Region 4 | *Surabaya, Indonesia* |

Publications

| **b-it-bots: Our Approach for Autonomous Robotics in Industrial Environments** | *Springer, Cham* |
| | *Dec. 2019* |

Projects

2019	**Point cloud classification of real objects using CNNs**, Master Thesis
2019	**Developed real-time multimodal object recognition using point cloud and rgb image**, b-it-bots RoboCup@Work Team
2018	**Developed robot perception for advanced welding test**, b-it-bots RoboCup@Work Team
2017	**Active visual scene exploration for mobile robots**, R&D Project
2014	**Mobile firefighting robot navigation using Fuzzy logic**, Bachelor Thesis

Language Proficiency

English

FULL PROFESSIONAL PROFICIENCY

Deutsch

LIMITED WORKING PROFICIENCY