## Pieter van Zutven

#### Personal and Contact Information

Name:Pieter van ZutvenAddress:Parallelweg 2Date of birth:April 4, 19854143 LA LeerdamNationality:DutchNetherlands

**Telephone:** +31 648784932 **E-mail:** pieter@rockbotics.nl



## **Employment History**

11/2020 - present



Independent Software Engineer. Rockbotics, Leerdam, Netherlands
Responsibility: freelance software development. Tasks: design of algorithms to
measure and control motion of autonomous devices and machines, such as robots,
vehicles and drones, algorithm implementation in software, integration on (embedded)
hardware and experimental testing.

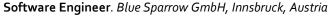
03/2017 - 10/2020

**Software Engineer**. STIHL Tirol GmbH, Langkampfen, Austria



Responsibility: development of robotic lawn mower software. Tasks: design of localization, mapping, path planning and trajectory following algorithms for autonomous robot navigation, (embedded) software implementation, hardware selection and integration (qps, uwb, camera, imu and odometry), experimental testing.

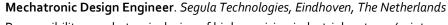
11/2016 - 02/2017





Responsibility: development of drone software. Tasks: design of mathematical drone models, positioning controllers and trajectory generation algorithms, implementation of software, experimental testing. Stopped because of company bankruptcy.

04/2014 - 10/2016





Responsibility: mechatronic design of high precision industrial systems (printers, scanners, lithography machines). Tasks: mathematical modelling, (non)linear feedback and feedforward control design, system identification, parameter estimation, software development, hardware selection and integration, experimental validation.

10/2009 - 03/2014

**PhD Researcher**. Eindhoven University of Technology, Faculty of Mechanical Engineering, Dynamics and Control Group, Eindhoven, The Netherlands.



Engineering, Dynamics and Control Group, Eindhoven, The Netherlands.

Responsibility: research and development of humanoid robots. Tasks: mathematical modelling, system identification and control of humanoid robots, software development, hardware integration and experimental validation of robot walking.

## Pieter van Zutven

## Education

10/2009 - 03/2014

**PhD Robotics**. Eindhoven University of Technology, Faculty of Mechanical Engineering, Eindhoven, The Netherlands. Graduated in 2014.

PhD thesis: Control and Identification of Bipedal Humanoid Robots: Stability Analysis and Experiments.

09/2006 - 09/2009

MSc Dynamics and Control. Eindhoven University of Technology, Faculty of Mechanical Engineering, Eindhoven, The Netherlands. Graduated in 2009.

MSc thesis: Modelling, Identification and Control of Humanoid Robots

09/2003 - 08/2006

**BSc Mechanical Engineering**. *Eindhoven University of Technology, Faculty of Mechanical Engineering, Eindhoven, The Netherlands*. Graduated in 2006. BSc thesis: Scilab as an Alternative for Matlab

#### **Additional Activities**

09/2008 - 08/2013

**Team Leader of the RoboCup Humanoid Robot Team.** *Tech United Eindhoven.* Responsible for the coordination of the team and for defining objectives, research direction, planning and task division.

06/2012 - 06/2013

Organization Chair of the RoboCup Humanoid League. RoboCup.

Responsible for affairs related to the organization and game play rule development of the humanoid league during RoboCup 2013.

## Training, Courses and Certification

- 2015 Working in Projects. Segula
- 2015 Human Engineering and Effective Communication. Saskia Slotboom
- 2014 Time Management. Een Helder Hoofd
- 2014 Simplify Software and Hardware Co-Design with MATLAB and Simulink. Mathworks
- 2014 Simplify Modelling and Simulation with MATLAB and Simulink. Mathworks
- 2014 Seminar Motion Control in the USA. MICE by
- 2009 2011 PhD Course Program. Dutch Institute of Systems and Control (DISC)
  - 2011 Scientific Integrity. TU/e
  - 2011 Writing Articles and Abstracts in English. TU/e
  - 2010 Supervising Master Students. TU/e
  - 2010 **Technology Entrepreneurship**. *TU/e*
  - 2009 Planning and Communication. TU/e
  - 2009 **C++ Course**. *TU/e*
  - 2006 Spanish for beginners. TU/e

Resume

# Pieter van Zutven

# Skills and Interests

Computer C/C++, ROS, Matlab, Simulink, Stateflow, Javascript, HTML, CSS. Professional Level

C#, Python, VBA, Visual Studio, Linux, xPC Target, dSpace. Experienced Level

PHP, NYCe 4000, Ethercat. Intermediate Level

VB.net, Java, Labview. Basic Level

Languages Dutch. Native, English, German. Fluent, Spanish, French. Basic

Interests Sports. Mountain Biking, Cycling, Hiking, Snowboarding, Skiing

Travelling. Photography

Reading. Novels, Technical and Scientific Magazines and Books