FERDIAN ADI PRATAMA

Robotics Developer

@ ferd1@protonmail.com ferdianap.github.io ferdianap BSD City, Indonesia

INDUSTRY EXPERIENCE

Freelance Consultant

PLENGoer Robotics

Sept 2016 – Dec 2016 Osaka, JAPAN

PLENGoer Robotics is a startup company co-founded by PLEN Project and the GoerTek Group and specializes in the development of practical household and personal service robots. Specialized in robot architecture and software development, I provide technical advises and support with ROS programming and its application to the PLEN CUBE robot series

Electrical Engineering Intern

Demag Cranes & Components, GmbH

Feb 2009 – Aug 2009 Wetter, GERMANY

Demag Group is one of the world's leading suppliers of industrial cranes, crane components and services of the Demag brand.

- Assigned in Elektrotechnick Handling Technology department during a 6 months internship
- Developed infrared circuit modules for overhead crane controller boards

Mechatronics Engineering Intern

Siemens Vocational Training Center

Sept 2007 – Dec 2007 Cilegon, INDONESIA

Handled milling machine, lathe machine, electrical components and circuit, programmed a CNC Lathe machine

EDUCATION

Ph.D. in Information Science

Japan Advanced Institute of Science and Technology

2013 – 2016 Nomi, JAPAN

- Advisor: Nak Young Chong
- Thesis: Enforcing Personalized Human-Robot Interaction through an Integrated Epigenetic Robot Architecture
- My Ph.D. is about the design of developmental robot architecture inspired from psychological studies, where the robot is able to developmentally learn in a symbolic manner based on visual stimuli regarding its interaction with human (verbally) and the environment (physically).
- I developed my own image processing module using the currently available technique (saliency detection, object detection and tracking), using ROS and OpenCV.
- I have experience with Kinect using PointCloud and multiple grasping point of an object, as well as a stereo-vision and generic RGB camera.

SUMMARY

Aiming to further advance the current robotics technology by briding the gap between research and practice through machine learning and computer vision.

EXPERTISE

Human-robot interaction | AI | Machine Learning | Computer Vision

ROS | C++ | Python | OpenCV

LANGUAGES

English ●●●●●

Japanese ●●●●●

Indonesian ●●●●●

ACADEMIC EXPERIENCE

Visiting Scholar

University of Genova

Oct 2014 – Jan 2015 Genova, ITALY

Conducting Experiments for Ph.D. main research using Baxter Research Robot, including the integration of developmental architecture and visual processing module.

Teaching Assistant

Robotics Lecture @JAIST

Dec 2013 – Feb 2014 Nomi, JAPAN

Holding recitation, grading assignments, and responsible for helping with lab experiments.

EDUCATION

M.S. in Information Science

Japan Advanced Institute of Science and Technology

2011 – 2013 Nomi, JAPAN

B.S. in Mechatronics Engineering

Swiss German University

2006 – 2010 Tangerang, INDONESIA

RESEARCH TALKS

ERIS: Epigenetic Robot Intelligent System

IEEE RO-MAN Workshop

2015 Kobe, JAPAN

Toward Epigenetic Architecture Interconnection: Context-influenced Long-Term Memory

The 1st Hanyang-JAIST Joint Workshop on Decision and Planning

2014 Nomi, JAPAN

SELECTED PUBLICATIONS

Journal Articles

- Pratama, Ferdian, Fulvio Mastrogiovanni, Soon Geul Lee, et al. (2016). "Long-term knowledge acquisition using contextual information in a memory-inspired robot architecture". In: *Journal of Experimental & Theoretical Artificial Intelligence*.

Conference Proceedings

- Pratama, Ferdian, Fulvio Mastrogiovanni, and Nak Young Chong (2014). "An integrated epigenetic robot architecture via context-influenced long-term memory". In: *Proceedings of Joint IEEE International Conferences on Development and Learning and Epigenetic Robotics (ICDL-EPIROB 2014)*.
- Pratama, Ferdian, Fulvio Mastrogiovanni, Sungmoon Jeong, et al. (2015). "Long-term knowledge acquisition in a memory-based epigenetic robot architecture for verbal interactions". In: *Proceedings of The 24th International Symposium on Robot and Human Interactive Communication (IEEE RO-MAN 2015)*.

Complete list of publication is available on the website.

ACADEMIC EXPERIENCE

Lab Assistant

Robotics Lab @JAIST

2012 Nomi, JAPAN

Responsible for managing lab related stuffs. Performing humanoid robot demonstrations and research related matter to visitors.

Webmaster

Center for Intelligent Robotics @JAIST

2011 – 2014 Nomi, JAPAN

Maintaining homepage of Center for Intelligent Robotics.

AWARDS

Doctoral Research Fellow Grant
Doctoral Course, 2013-2016

Outstanding Performance Award
Master Course, 2013

REFEREES

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