

Chanoh Park

9 Summerland Pl, Pullenvale, Queensland, Australia, 4069

+61-401308525, copark86@gmail.com

EDUCATIONAL BACKGROUND

Doctor of Science in Electrical Engineering and Computer Science *Nov 2019(expected)*

Commonwealth Scientific and Industrial Research Organisation (CSIRO), Brisbane, Queensland, Australia

Queensland University of Technology (QUT), Brisbane, Queensland, Australia

Master of Science in Electrical and Computer Engineering (*GPA: 4.13/4.5*) *Feb 2012*

Sungkyunkwan University (SKKU), Suwon, Korea

Bachelor of Science in Electronic and Information Engineering (*GPA: 3.91/4.5*) *Feb 2010*

Seoul National University of Science and Technology (SNUT), Seoul, Korea

GRATUATE COURSES

Pattern Recognition, Robot Vision, Optimization Methods, Computer Vision, Computer Vision Theory, Genetic Algorithms, Advanced Probability and Random Processes, Microprocessor Applications, Advanced Network Design, Lower Power VLSI Design, Analog/Mixed-Signal Design, Digital Integrated Circuits

RESEARCH EXPERIENCE

Data61, CSIRO, Brisbane, Queensland, Australia *Nov 2016 - Present*

Advisor: Peyman Moghadam, Alberto Elfes

PhD student (*Nov 2016 - Present*)

- Research of Map-centric Continuous-Time SLAM (Simultaneous Localization and Mapping)
- Research topics: Visual-Inertial-LiDAR SLAM, Probabilistic Sensor Fusion, Robust Optimization, Life-long mapping

eZRobotics, Suwon, Korea *Sep 2012 - Jan 2016*

Industrial manipulator simulator and machine vision company.

**This period was a substitute for mandatory military service, a special exception for researchers in Korea.*

Research Engineer (*Sep 2012 - Jan 2016*)

- Design, simulation, implementation, and validation of vision-based industrial manipulator kinematics calibration and 3D/2D vision-based robot guidance algorithm.
- Developed a manipulator-based high-precision 3D measurement device with large working volume.

Intelligent Systems Research Institute, SKKU, Suwon, Korea *Jan 2012 - Aug 2012*

Research Assistant (*Jan 2012 - Aug 2012*)

- Collaborated in a team to develop a robust 3D object recognition and pose estimation based on double layered particle filtering.

- Implementation of orientation SLAM and simple mono SLAM, intensively reviewed open source materials on filtering-based/graph-based SLAM, and structure from motion.

VLSI Algorithmic Design Automation Lab, SKKU, Suwon, Korea

May 2010 - Dec 2011

Research Assistant (*May 2010 - Dec 2011*)

- Designed a fast stereo matching algorithm with wide-dynamic search range, implemented FPGA version of depth map generator.
- Research and development into improvement of 3D video quality of stereoscopic camera by real-time depth map.
- Research and development of high-speed structured light 3D scanner on FPGA.

Institute for Biomedical Electronics, SNUT, Seoul, Korea

May 2006 – Dec 2009

Research Assistant (*May 2006 - Dec 2009*)

- Research and implementation of a portable bio-signal processing module.
- Designed analogue filter circuits for estimating ECG and PPG, an analogue signal stabilizer circuit for stable measurement of bio-signals, implemented analogue and digital mixed signal PCB with an 8-bit microprocessor.
- Implemented digital signal processing algorithms for bio-signals.

SELECTED PUBLICATIONS

arXiv page: [here](#)

CONFERENCE PAPERS

- **Chanoh Park**, Peyman Moghadam, Soohwan Kim, Alberto Elfes, Clinton Fookes, Sridha Sridharan, "Elastic LiDAR Fusion: Dense Map-Centric Continuous-Time SLAM", ICRA 2018.
- **Chanoh Park**, Soohwan Kim, Peyman Moghadam, Clinton Fookes, Sridha Sridharan, "Probabilistic Surfel Fusion for Dense LiDAR Mapping ", ICCV workshop 2017.

SKILLS

- Programming
 - Adept in C/C++, Matlab, OpenGL, OpenCV, Verilog, git
 - Prior experience with PCL, ROS, Cuda, Shader
- Embedded System/FPGA
 - Prior experience with ZYNQ, DSP, Vivado, ISE
- Other Skills
 - Prior experience with SolidWorks, PowerMill, Orcad