Kent K. Sommer

SOFTWARE ENGINEER · ROBOTICIST · MACHINE LEARNING RESEARCHER

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"I would like to work with the best minds in the industry on projects that matter and help to improve the world."

Education

University of Minnesota   *Minneapolis MN, USA*

B.A. IN COMPUTER SCIENCE   *2013 - 2016*

KAIST (Korean Advanced Institute of Science and Technology)   *Daejeon, South Korea*

M.S. IN COMPUTER SCIENCE AND ENGINEERING   *2016 - PRESENT*

Experience

Intelligent Systems and Neurobotics Lab   *Daejeon, South Korea*

RESEARCH ASSISTANT   *Sept. 2016 - Present*

- Developed the new recognition and SLAM system for HUBO (humanoid platform and winner of 2015 DARPA challenge)
- Developed deep learning based real-time robotic kidnap resolution system presented at URAI 2017
- Currently researching in the field of deep reinforcement learning and neural based planning for robotics

Cybertrol Engineering   *Minneapolis MN, USA*

SOFTWARE ENGINEER INTERN   *Aug. 2015 - Jul. 2016*

- Responsible for custom .NET software design, implementation, and testing.
- Responsible for research and development related to systems integration.

Yujin Robot   *Geumcheon-gu, South Korea*

INNOVATION TEAM INTERN   *May 2014 - Sept. 2014*

- Responsible for new obstacle detection stack utilizing PCL, ROS, and OpenCV.
- Assisted with the creation of the next iteration of Yujin's SLAM technology (D-SLAM).
- Upgraded six android applications for ROS Indigo.
- Responsible for various bug fixes throughout the ROS indigo software stack

The Toro Company   *Minneapolis MN, USA*

BUSINESS INTELLIGENCE ANALYST   *May 2013 - Aug. 2015*

- Responsible for QlikView and SAP integration and change management.
- Provided support and training to business users using QlikView.

The Toro Company   *Minneapolis MN, USA*

DESKTOP ANALYST   *May 2012 - Aug. 2012*

- Responsible for Windows 7 site wide deployment, as well as the iPad loaner program creation and documentation.

Skills

Programming Languages

PYTHON, C++, C, C#, HAVE USED MANY MORE

Tools and Libraries

ROS, UNIX, OPENCV, PCL, GAZEBO

Languages

FOREIGN

- Full professional proficiency in Swedish
- Elementary proficiency in Korean

Qualities

- Good at communicating technical terms in easy to understand language
- Passionate about everything I work on
- Excellent troubleshooter
- Work well in teams
- Quick learner

Various Projects

Open Source
Various Locations

MAINTAINER AND AUTHOR
2015-Present

- Implementation of Google's Inception v4 Architecture in Keras
- Implementation of Google's Inception ResNet v2 Architecture in Keras
- Implementation of Tamar's Value Iteration Network Architecture in PyTorch
- Implementation of Kendall's PoseNet Architecture in TensorFlow

Python Workshop
Daejeon, South Korea

TEACHER
2016

- Taught workshop on Python to a group of mixed level computer science students at KAIST

North Shore Philharmonic Orchestra
Duluth MN, USA

VIOLIN SOLOIST
Jun. 2014

- Performed a concert series as the soloist for Mozart's fourth violin concerto

Ethno
Rättvik, Sweden

UNITED STATES FOLK MUSIC REPRESENTATIVE
Jul. 2016

- Taught workshops on American folk music to students from all over the world