Yoshinobu Tanno *August 17, 2015*

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**Summary**

I interested in Computer Vison and developed application with depth sensor, stereo camera and so on. I proposed new application which used machine learning for image recognition. Not only software development but also I had experience of fabrication with 3d printer and knowledge of embodiment machine parts for creating exclusive hardware.

In the master's thesis, I proposed the system which control the power switch of the house hold appliance in response to human behavior (image analysis of the action of the person). I acquired wide knowledge because the system was needed network or hardware knowledge of the household appliance other than image processing, too.

After master graduation, software and experience of the hardware development are recognized, I developed the system which used sensor network and hardware which I applied computer vision. Not only I developed, but also I performed the lecture of the program to the student of the laboratory and I build the support system for beginners with the tool kits.

**Research Experience**

Creating sensor network, 3d printer fabrication, image processing assistant tools and so on. Also I lectured programming to student or created prototype hardware for exhibition.

The University of Aizu Fukushima, Japan

**Research Assistant** Apr 2012-present

* Help for creating sensor information webpage. I programed using PHP in Visual Studio and Eclipse. Sensor is Arduino.
* Rewrite coding C# from FORTRAN about ANN and GA. I learned basic knowledge about backpropagation and Roulette choice.
* Creating investment tools. I used Windows API and C# and network system (server and client) or OCR.
* Creating image cutting tools. I used C# in Visual Studio.
* Creating file share system. I used fuse and C++ in Visual Studio
* Creating PI control system. I used Matlab and Simulink and Arduino and motor.
* Creating about stereo camera program. I used OpenCVSharp and learned stereo camera about matrix.
* The above works and other is my home page http://ytanno.herokuapp.com/

Computer System Computer Science, the University of Aizu. Fukushima, Japan

**Master Student** **| Teaching Assistant** *Apr 2010-Mar 2012*

* Creating sensor network in lab. I used Arduino and temperature sensor and twitter API and C#.
* Building system to save power consumption using human behavior.  
  ・Estimating human behavior using Kinect as depth camera.  
  ・Developing detection of human's front whether or back, from depth  
  image using machine learning.  
  ・Controlling power switch of electrical appliances via network.

Computer Software Computer Science, the University of Aizu. Fukushima, Japan

**Undergraduate Student | Teaching Assistant** *Apr 2005-Mar 2010*

* Building application to manage digital document.  
  ・Realizing GUI with C#.  
  ・Developing tagging and visualizing documents by tree structure.

**Skills**

Programming: C/C++/C#/Java/Python/Ruby/Ruby on Rails/PHP/javascript etc.

Software: Autodesk/Openframeworks/Processing/Matlab/Simulink/Excel (VBA)/Wireshark/Visual Studio/Eclipse/FFmpeg/Unity

Hardware: Arduino/Pandaboard/FPGA

Modeling: Frame of stereo camera

Others: Image Recognition/Sensor Network/Clustering/Argument

Reality/Computer Vison/Windows API/

Natural Language; Japanese (native)

**ACADEMIC QUALIFICATIONS**

The University of Aizu Fukushima, Japan

**Master of Computer System**  *Apr 2010-Mar 2012*

The University of Aizu Fukushima, Japan

**B.S. in Computer Software** *Apr 2005-Mar 2010*