YasuyukiKATAOKA

Data Scientist

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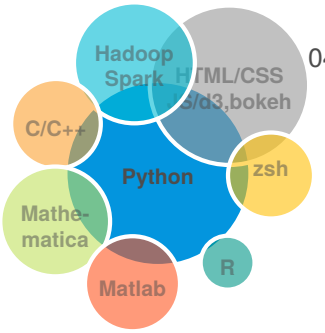
Programming



Personal Skills

Summary

My objective is **to create innovative IoT / Robotics applications leveraging both of my backgrounds, Machine Learning and Control Engineering**. My current interest is creating machine intelligence beyond human capability by digesting big and heterogenous data.

My work experience is **machine learning application R&D, e.g., vehicle analytics, wearable/IoT analytics, and NLP over 5+ years**. Currently, I am leading data analytics team in NTT i^3. My role ranges core product ideation, development, architecture design, data analytics, visualization, customer engagement, team building and mentoring.

I have been passionate in robotics and control engineering too. My master's research was **nonlinear control theory on drone system towards fail-safe problem**. Also, I developed **self-driving car** during exchange program in University of Waterloo.

Experience

09/15 - Now **Data Scientist / Software Engineer** NTT Innovation Institute, Inc., Palo Alto, USA

Vehicle Analytics - Leveraing time-series & multi-modal data including EMG/ECG, I created vehicle data analytic tools for IndyCar's team. The real-time prediction is designed by semi-supervised ensemble learning to enable a prediction of driver's good / bad behavior and an assessment of wearable signals. Then, the post analysis identified potential relaxation points by unsupervised learning.

Proactive Healthcare - I created proactive stroke prediction and proactive ADR prediction system by multi-modal data analytics using multiple wearable devices. These future vision resulted in 1st prize on both Mylan Hackathons held in USA and India.

04/11 - 08/15 **Research Scientist** NTT R&D, Japan

Real-world Human Activity navigation - I created automatic methodology to created the knowledge base of real-world activities by NLP & Machine Learning leveraging social media and linked open data. Upon this activity knowledge base, real-world service/app recommendation is designed.

Device Orchestration System - One system is web service that classifies user's behaviour pattern during group meeting towards automatic facilitation system. Another system enables media distribution to the devices in user's room through UPnP by proxy server.

Wheel Chair Indoor Navigation System - I successfully managed system integration among 15 members team, and was core deveploer of indoor location system using BLE sensors.

Education

2013-2017 **Ph.D.** University of Tokyo, School of Eng.
Research on Machine Learning application in NLP and image recognition.

2009 **Exchange Program** University of Waterloo, Mechanical and Mechatronics Eng.
Development of autonomous driving car competition for Robot Racing '09.

2008-2011 **Master's (Valedictorian)** Tokyo Institude of Technology, Mech. and Control System Eng.
Research on nonlinear control theory to trirotor drone system.

2005-2008 **Bachelor's (top 5%)** Tokyo Institude of Technology, Control and System Eng.
Research on experimental study on jumping-motion nonlinear control.

OS Preference

MacOS ★★★★★
GNU/Linux ★★★★☆
Unix ★★★★☆
Windows ★☆☆☆☆

Languages

Japanese ★★★★★
English ★★★★☆

Publications

Machine Learning

"Extracting and Evaluating Ontologies of Human Activities from Linked Open Data and Social Media", Journal of the Japanese Society of Artificial Intelligence (JSAI), Jan.2016

"Service Discovery Method basedon User Intent", The 2013 IEEE/WIC/ACM International Conference on Web Intelligence (WI'13), Nov.2013

Robotics

"Circle Motion Control of Trirotor UAV via DiscreteOutput Zeroing Control", The 52th IEEE Conference on Decision and Control (CDC'13), Dec.2013

"Nonlinear Control and Model Analysis of TrirotorUAV Model", The 18th International Federation of Automatic Control World Congress (IFAC'11), Aug.2011

Honors & Awards

11/2016 **2nd prize (120+ participants)** Mercedes Benz Hackathon@Silicon Valley
battery prediction using IoT data towards smart EV fleet system

03/2016 **1st prize (300+ participants)** Milan Hackathon@Bangalore
Proactive ADR prediction by smart pillbox and social listening

02/2016 **1st prize (250+ participants)** Milan Hackathon@Pittsuburgh
Proactive stroke prediction by multiple devices

11/2014 **Excellent Research Award** 5th conf. on SIG Web Intelligence and Interaction
Automatic creation of real-world activity knowledge base by social media

05/2014 **Research Activity Award** NTT Service Evolution Laboratories
To the contribution in both domestic and international academic community

12/2010 **SIYSS 2010 as a delegate from Japan** The Japan Prize Foundation
Invited to Nobel Prize events as one of the 25 young scientists from the world.

03/2009 **Excellent Student Award** Tokyo Institute of technology
To the both academic and course achievement during bachelor's.

Certifications

12/2016 **CCP Data Scientist** Cloudera Certified Professional Program
top 5 data science certificate, three different 8-hours data science projects

01/2017- **Self-Driving Car Engineer Nanodegree Program** Udacity. E-learning
9 months project - computer vision, deep learning, robotics and more

Skills

frequently Use - Python, R, sklearn, tensorflow, MySQL, InfludDB, MongoDB, HiveQL, Cassandra, SPARQL, Hadoop, pyspark, Sqoop, HTML/CSS/js, d3.js, bokeh, bootstrap, grafana, mapbox

used to use - C/C++, Matlab, Mathematica, Maxima, Torch7

Other Info

what should I write more?
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