Curriculum Vitae

Satoshi Miyazawa

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PROFESSIONAL EXPERIENCE

April 2020 -
Engineer, Technology Department, LocationMind Inc., Tokyo, Japan

- Human mobility modeling and analysis using mobile phone trajectory data

February 2018 - March 2020
Project Consultant, Asian Development Bank Institute, Tokyo, Japan

- Geospatial modeling of the spillover effect of high-speed rail infrastructure development

November 2017 - March 2020
Project Researcher, Center for Spatial Information Science (CSIS), the University of Tokyo, Tokyo, Japan

- Big data analysis on city-scale mobile phone GPS trajectory.
- Extraction of urban QOL indicators from GPS trajectories.

September 2015 - October 2017
Engineer, Nightley Inc., Tokyo, Japan

- Big data analysis on geo-tagged SNS for inbound tourism analysis.
- Development of machine-learning backend API

April 2015 - September 2017
Assistant Technical Staff, Institute of Industrial Science (IIS), the University of Tokyo, Tokyo, Japan

June 2016 - September 2017
Research Assistant, Center for Spatial Information Science (CSIS), the University of Tokyo, Tokyo, Japan

July 2014 - August 2014
General Associate, National Consortium for the Study of Terrorism and Responses to Terrorism (START), College Park, MD

- Modeling and analyzing the possible human trafficking routes in the Arizona-Mexico border, including non-traditional transportation.

November 2013 - May 2014
General Associate, National Consortium for the Study of Terrorism and Responses to Terrorism

(START), College Park, MD

May 2013 - August 2013
GIS Analytical Project Intern, National Consortium for the Study of Terrorism and Responses to Terrorism (START), College Park, MD

PUBLICATIONS

- Miyazawa, S., Song, X., Jiang, R., Fan, Z., Shibasaki, R., and Sato, T.: CITY-SCALE HUMAN MOBILITY PREDICTION MODEL BY INTEGRATING GNSS TRAJECTORIES AND SNS DATA USING LONG SHORT-TERM MEMORY, ISPRS Ann. Photogramm. Remote Sens. Spatial Inf. Sci., V-4-2020, 87–94, https://doi.org/10.5194/isprs-annals-V-4-2020-87-2020, 2020.
- Tianqi Xia, Satoshi Miyazawa, Xuan Song, Yuki Akiyama, Renhe Jiang, Kyoung-sook Kim and Ryosuke Shibasaki (2019) 'Mining heatstroke hotspot for inbound tourists in Tokyo' The symposium of the International Association of Geo-informatics (IAG'i).
- Satoshi Miyazawa, Ryosuke Kobayashi, Yuki Akiyama and Ryosuke Shibasaki (2019) 'Extracting Urban Mobility QoL Indicators and Individual Activity Pattern from Mobile Phone-based Human Mobility Trajectories', The symposium of the International Association of Geo-informatics (IAG'i).
- Ryosuke Kobayashi, Satoshi Miyazawa, Yuki Akiyama, and Ryosuke Shibasaki. (2019) 'Identification of the Homes, Offices, and Schools from Long-Interval Mobile Phone Big Data Using Mobility Pattern Clustering'. In P. Kyriakidis, D. Hadjimitsis, D. Skarlatos, & A. Mansourian (Eds.), Accepted Short Papers and Posters from the 22nd AGILE Conference on Geo-information Science (pp. 1–5). Limassol, Cyprus: Stichting AGILE.
- KE Seetha Ram and Satoshi Miyazawa. (2019) 'Unlocking the spillover effect of Infrastructure and improving quality of life : new insights for private sector investment in developing countries in Asia'. In Proceedings of the 8th Civil Engineering Conference in the Asian Region (CECAR).
- Satoshi Miyazawa, Xuan Song, Tianqi Xia, Ryosuke Shibasaki, and Hodaka Kaneda. (2019) 'Integrating GPS trajectory and topics from Twitter stream for human mobility estimation', Frontiers of Computer Science, 13(3), 460-470. doi: 10.1007/s11704-017-6464-3.
- Renhe Jiang, Xuan Song, Zipei Fan, Tianqi Xia, Quanjun Chen, Satoshi Miyazawa, and Ryosuke Shibasaki, (2018) 'DeepUrbanMomentum : An Online Deep-Learning System for Short-Term Urban Mobility Prediction'. In Proceedings of the 32nd AAAI Conference (AAAI 2018)
- Miyazawa S, Song X, and Shibasaki R. (2015) Discovering spatiotemporal topics in Twitter stream to predict crowd behavior, The 24th Conference of Geographical Information Systems Association of Japan (in Japanese)
- Miyazawa S, Yonezaki S, Yoshitsugu T, and Ichinose T. (2011) The Relationship Between Inland Land Cover and the Damage on Coastal Forest Caused by the 2011 Tohoku Tsunami in Sanriku Coast, Japan, The 20th Conference of Geographical Information Systems Association of Japan (in Japanese)

AWARDS/GRANTS

- GSFS PhD Academic Research Grant, Graduate School of Frontier Sciences, The University of Tokyo. (750,000 JPY)

- Incentives to Study and Conduct Research Through SFC Education Promotion Foundation (124,000 JPY) (Lead researcher: Miyazawa S.)

EDUCATION

October 2014 - September 2017
The University of Tokyo, Tokyo, Japan

- Completed Ph.D. program (Socio-Cultural Environmental Studies) without a Ph.D. degree
- Worked on multi-modal human mobility prediction/classification with GPS and SNS data.
- GPA: 4.0/4.0

September 2012 - May 2014
The University of Maryland, College Park, USA

- Master of Professional Studies in Geospatial Information Sciences
- Capstone Project: Modeling and analyzing the possible human trafficking routes in the Arizona-Mexico border, including non-traditional transportation.
- GPA: 4.0/4.0

April 2008 - March 2012
Keio University, Tokyo, Japan

- Bachelor of Arts in Environmental and Information Studies
- Researched assessment of tsunami mitigation effect of coastal forest in the Tohoku region, Japan using Remote Sensing and GIS for my bachelor's thesis.
- GPA: 3.61(Junior/Senior). 3.28(Cumulative)

QUALIFICATIONS, SKILLS, LICENSES

Language: Japanese, English (TOEFL iBT: 100, 2014)
Python, PHP, Java, Perl, C++, Scheme, JavaScript, R for programming
Tensorflow, Keras, PyTorch, Scikit-Learn for Machine Learning
ArcGIS, QGIS, GRASS GIS, PostGIS for GIS software
ERDAS Imagine, ENVI for remote sensing software
Apache Spark for cluster computing
MySQL, PostgreSQL, Oracle Database for database management