Sooyong Jang

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Education

- **University of Pennsylvania**, Philadelphia, PA
  Ph.D.: Computer and Information Science (GPA: 3.97/4.00)   Aug 2018 – May 2024 (anticipated)
  M.S.: Computer and Information Science (GPA: 4.00/4.00)   Graduated: May 2017
- **Seoul National University**, Seoul, South Korea   Graduated: Feb 2013
  Cum Laude (GPA: 3.80/4.30)
  B.S.: Computer Science and Engineering
  B.B.A.: Business Administration
- **Uppsala University**, Uppsala, Sweden   Spring 2010
  Exchange student: Information Technology

Research Experience

- **Ph.D. Student** @ PRECISE Center, University of Pennsylvania, Philadelphia, PA   May 2018 - Present
  - Maintains medical related applications (SpO2 data remote collection, and glucose data analysis)
  - Published a paper in **AISTATS 2021** regarding a confidence calibration (Paper: Jang et al., 2021)
  - Published a paper in **ICML 2022** regarding a sequential covariate shift detection algorithm (Paper: Jang et al., 2022)
- **Undergraduate Research Intern** @ BioIntelligence Lab., Seoul National University, South Korea   Sep 2011 – Dec 2012
  - Studied motion generation with a humanoid robot (DARwIn-OP)
- **Visiting Research Student** @ Institute for Robotics & Intelligent Machines, Georgia Institute of Technology, Atlanta, GA   Jul 2011
  - Ported the anyKode Marilou Simulator Library (implemented in C++) to Java Using Java Native Access

Work Experience

- **Research Specialist** @ University of Pennsylvania, Philadelphia, PA   Jul 2017 – Aug 2018
  - Developed python programs in medical fields (Analyzing glucose data, and HL7 format files)
- **Teaching Assistant** @ University of Pennsylvania, Philadelphia, PA
  - CIS5200 Machine Learning, CIT5950 Computer Systems Programming, CIS5400 Principles of Embedded Computation
- **Software Engineer** @ Artificial Intelligence Lab., Crosscert Inc., Seoul, South Korea   Jul 2013 – Dec 2014
  - Designed/developed a robot SDK for a smartphone robot, Tyche
- **Software Engineer** @ Intelligent Robotics Lab., Bonavision Inc., Seoul, South Korea.   Full-Time: Jun 2007 – Jan 2010
  Part-Time: Mar 2012 – Jul 2013, Jun 2010 – Aug 2010, Dec 2010 – Feb 2011
  - Developed UI based on Eclipse RCP, interface with a 3D simulator for intelligent Robot Software Platform (iRSP)
  - Integrated Planning Domain Definition Language (PDDL) Planner with iRSP
  - Created UPnP components for devices (iRobot Create, Microsoft Kinect/ASUS Xtion Pro, Sphero) and android apps

Publication

- **Journal Publications**
  1. Susan Kohl Malone, Amy J. Peleckis, Laura Grunin, Gary Yu, **Sooyong Jang**, James Weimer, Insup Lee, Michael R. Rickels, and Namni Goel. "Characterizing Glycemic Control and Sleep in Adults with Long-Standing Type 1 Diabetes and Hypoglycemia Unawareness Initiating Hybrid Closed Loop Insulin Delivery." *Journal of Diabetes Research 2021*, 2021.
  2. Hung Nguyen, **Sooyong Jang**, Radoslav Ivanov, Christopher Bonafide, James Weimer, and Insup Lee. "Reducing pulse oximetry false alarms without missing life-threatening events." *Smart Health*, 2018.
- **Refereed conferences**
  1. **Sooyong Jang**, Insup Lee, and James Weimer. "Improving Classifier Confidence using Lossy Label-Invariant Transformations." In *International Conference on Artificial Intelligence and Statistics*, pp. 4051-4059. PMLR, 2021.
  2. **Sooyong Jang**, Sangdon Park, Insup Lee and Osbert Bastani, **"**Sequential Covariate Shift Detection Using Classifier Two-Sample Tests.**"** In *International Conference on Machine Learning,* pp. 9845-9880. PMLR, 2022.

Skills

- Programming Language: Java (5+ years industry experience), Matlab, C/C++, C#, Python, Swift, Ruby, R
- DB: MySQL, Mongo DB
- Machine Learning library: PyTorch

Certifications

- Enrolled Agent (EA) – 2017

Last Updated: Jan 05, 2023.