

Yrjö Häme

Contact

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Summary

Experienced product owner and machine learning professional specialized in algorithm development and data-intensive applications for the medical field. Excellent academic foundation with a PhD in Biomedical Engineering from Columbia University and a Master's degree in Computer and Information Science from Helsinki University of Technology. Broad industry experience involving productization of predictive analytics for time series data and deep learning models for medical image analysis. Currently working as a Product Owner for the Acute Care Algorithms team at GE Healthcare.

Experience

GE Healthcare

Product Owner, Staff Data Scientist, 7/2019 – present

Senior Data Scientist, 9/2018 – 7/2019

- Responsible for customer requirement collection, roadmap definition, work prioritization and cross-domain communication.
- Development of algorithms for patient deterioration prediction.
- Design and implementation of a predictive analytics platform in AWS.

Philips Oy

R&D Scientist, Product Owner, 1/2017 – 8/2018

- Algorithm development team lead.
- Image analysis algorithm design and development for MR-based radiation therapy.
- Implementation of convolutional neural network models for image segmentation and transformation.

Comptel Oyj

Data Scientist, 3/2015 – 12/2016

- Leading analytics developer for a time series analysis software.
- Developer of a distributed data processing platform.
- Acted as leading data scientist in a customer project delivery team.

Heffner Biomedical Imaging Lab, Columbia University

Graduate Research Assistant, 1/2011 – 10/2014

- Developed, evaluated and published algorithms for adaptive quantification and subtyping of pulmonary emphysema on CT.
- Proposed a data analysis plan and performed a preliminary study for a successful \$1.8 million grant at the National Institutes of Health.

Biophotonics and Optical Radiology Laboratory, Columbia University

Graduate Research Assistant, 9 – 12/2010

- Implemented methods for detecting arthritic finger joints from optical tomography.

Department of Biomedical Engineering and Computational Science, Helsinki University of Technology (HUT)

Researcher, Research Assistant, 9/2007 – 8/2010

- Developed, evaluated and published a state-of-the-art tumor segmentation method in an international research project.
- Implemented and evaluated an algorithm for cortex reconstruction from MRI.

Department of Media Technology, HUT

Research Assistant, 1/2004 – 12/2005

- Created teaching materials for classes and worked as a system administrator.

Teaching assistantships

- Biomedical signal processing and signal modeling (Columbia University, 2013)
- Analysis and quantification of medical images (Columbia University, 2012)
- Image processing in biomedical engineering (HUT, 2010)

Education

Columbia University, New York, NY, USA

Ph.D. in Biomedical Engineering, 9/2010 – 2/2015

Dissertation: *Adaptive quantification and subtyping of pulmonary emphysema on computed tomography*

Master of Philosophy in Biomedical Engineering, 2/2014

Helsinki University of Technology, Finland

Master of Science in Technology, 11/2008

Major: Computer and Information Science, Minor: Imaging Technology

Thesis: *Cortex reconstruction from magnetic resonance images* (grade: 5/5)

RWTH Aachen, Germany

Erasmus exchange student, 9/2006 – 8/2007

Awards

International Fulbright Science and Technology Award Fellow, 2010 – 2013

Master's Thesis Award, Pattern Recognition Society of Finland, 2009

Publications

Journal publications

Häme, Y., Angelini, E.D., Hoffman, E.A., Barr, R.G., Laine, A.F.: *Adaptive quantification and longitudinal analysis of pulmonary emphysema with a hidden Markov measure field model*. IEEE Transactions on Medical Imaging, vol. 33, issue 7, 2014. Journal impact factor at time of publication: 3.799.

Häme, Y., Pollari, M.: *Semi-automatic liver tumor segmentation with hidden Markov measure field model and non-parametric distribution estimation*, Medical Image Analysis, vol. 16, issue 1, 2012. Journal impact factor at time of publication: 4.248.

Skills

Programming: Python, R, PostgreSQL

Libraries/Environments: AWS, Keras, Apache Spark, scikit-learn, NumPy

Languages: Finnish (native), English (fluent), German (satisfactory), Swedish (satisfactory)

October 5, 2020