Kaveh Samiee

- (+358) 458-602602
- kaveh.samiee@gmail.com
- /in/kavehsamiee
- GoogleScholar
- GitHub Profile

Address
Helsinki, Finland

Visa status
Finnish PR & work permit

Key Skills
Predictive Analysis
Time-series
Statistical Analysis
Machine Vision
Data Modeling
Team Leadership
Agile

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Programming:

AI and ML:

Big data stack:

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Tools:

Kaveh Samiee
Staff Algorithm Software Engineer

About Me I hold a Ph.D. in Signal Processing with a strong focus on Machine Learning and over a decade of professional experience across various industries. My expertise spans time-series analysis, computer vision, machine learning, and large-scale data analytics, with a particular emphasis on applications in the healthcare sector. As a versatile full-stack data scientist with a multidisciplinary educational background and diverse work experience, I excel at integrating knowledge and skills from different domains, leveraging practical problem-solving and critical thinking to deliver impactful solutions.

Experience

Sep 2021 - present, *Staff Algorithm Software Engineer*, GE Healthcare
Algorithm development and MLOps in ECG platform team.

Apr 2021 - Sep 2021, *Technical Leader*, Nokia
Key responsibilities:
- Local product owner of a team delivering ML/AI solutions for next cellular network generations.
- Machine learning engineer.
- Working with juniors and M.S. thesis advisor.

Feb 2019 - Mar 2021, *Senior Data Scientist*, Fujitsu
Some of the projects and responsibilities:
- eMOM-GDM (CleverHealth Network), platform architect and full-stack developer (Fujitsu side).
- Walking Monitor, technical lead.
- Retinopathy diabetic detection, data scientist and software developer.
- Recommendation Engine (internal-product), data scientist and software developer.

Feb 2018 - Feb 2019, *Senior Data Scientist*, GE Healthcare
- Leading a team of junior researchers working on transfer learning for biomedical predictive models. Leveraging unsupervised and semi-supervised approaches to make uncertain real-world data tractable,
- Involved in development of machine learning models for predication and early detection of patients clinical state using their Electronic Medical Records. I have been participating in development of biomedical signal processing algorithms for wearable monitoring devices,
- Thesis adviser of 4 Master thesis workers.
- Facilitating to build the team in a new organization, PO and scrum master.

Aug 2015 - Feb 2018, *Algorithm Developer & Software Engineer*, GE Healthcare
Mainly responsible for the development of ECG algorithm in C++, unit-tests, functional tests, and Robot framework performance testing. Devising a Machine Learning model to tackle alarm fatigue in Intensive Care Units. Worked on development of multi-modals heuristic based algorithms.

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AI and ML:

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Big data stack:

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Tools:

Aug 2011 - Aug 2015, *Researcher,* **Tampere University of Technology**
Research scopes: Image retrieval and classification, EEG classification, sparse signal decomposition, Hebbian-PCA neural networks.

Sep 2013 - May 2015, *Teacher Assistant,* **Tampere University of Technology**
Image Processing I, graduate course.

Mar 2006 - May 2011, *Electronics and Automation Engineer,* **Grohe Mohandesi Tose Sanaye Atlas Persia**
main responsibilities in several industrial projects: ARM based embedded systems, PCB design, PLC programming, design and implementation of EAI-485 networks.

Apr 2009 - Aug 2009, *Electronics Engineer,* **Koopa Pajouhesh**
- Responsible for designing an image processing software applicable to metal surface inspection and defect detection in manufacturing. Implemented using C# for MS windows client and C++ and OpenCV for an embedded system,
- Involved in designing of a new generation of portable metal hardness tester using Atmel AVR micro-controllers, implemented using avr-gcc.

Jun 2005 - Mar 2007, *Electronics Repair Specialist,* **Behza Co**
Electronics Repair Specialist of industrial offset printing machines

Education

2013 - 2019, Tampere University, Finland
Ph.D. in Signal Processing

2005 - 2007, Iran University of Science and Technology, Iran
MS in Electrical and Electronics Engineering

2000 - 2005, University of Mazandaran, Iran
BS in Electrical and Electronics Engineering

Software Development Skills

Programming

○ C++	○ Python	○ SQL
○ Java	○ C	○ html & CSS
○ C#	○ VB	○ Matlab

AI and Machine learning

○ Tensorflow	○ Pytorch	○ Keras
○ Scikit-Learn	○ Dask	○ Pandas
○ Open-CV	○ Numpy	○ Weka
○ MS Cognitive Toolkit	○ Azure ML Studio	○ Bokeh
○ Tensorflow-lite	○ MLflow	

Big data stack

○ Azure	○ AWS	○ Kubernetes
○ Dockers	○ Flask	○ Nginx

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AI and ML:

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Big data stack:

....

Tools:

Databases
- Postgres
- SQLite
- SQL Server
- MongoDB

Language Skills

English, Full professional proficiency

Persian (Farsi), Native

Patents

- Methods and systems for patient monitoring, K. Samiee., US Patent US11432778B2.

Certificates

- Microsoft Certified Azure Data Scientist Associate - DP 100
- Microsoft Certified Azure Data Engineer Associate - DP 203

Publications

https://scholar.google.fi/citations?user=1UflL34AAAAJ&hl=fi&oi=ao

Author and co-author of 17 peer-reviewed articles published in number of top-tier Journals and Conferences, total citations: 703

Thesis Advisor

- T. Petäjä, "Prediction of Patient Deterioration in the Emergency Department using Recurrent Neural Networks," Mater Thesis, 2019, http://urn.fi/URN:NBN:fi:aalto-201903172324.
- L. Medeiros, "Frequency and Time Domain Feature Engineering and Predictive Modeling Based on ECG, SpO2, and Respiration Signals," Mater Thesis, 2020, http://urn.fi/URN:NBN:fi:aalto-202003222583.
- K. Dhakal, "Log Analysis and Anomaly Detection in Log Files with Natural Language Processing Techniques," Mater Thesis, 2023, https://urn.fi/URN:NBN:fi:aalto-202310156380.

Interests

Professional
Signal Processing, Machine Learning, time-series Forecasting, Big Data Analytics, Semantic learning, Healthcare and well-being applications

Personal
Reading, yoga, photography, aquarist, DIY projects, enjoying quality time with my wife and our adorable fluffy dog.