

Curriculum Vitae



Name:	Mr. Vesa Kuoppala
Date of Birth:	2 June 1971
Address:	Espoonlahdenkatu 10 as 67 , FIN-02320 Espoo, Finland
Mobile Phone:	+358 50 338 5811
E-mail:	vkuoppala@hotmail.com
LinkedIn Profile:	www.linkedin.com/in/vesa-kuoppala-70a86a11
Civil Status:	Single
Driver License:	AB-license
Military Rank:	Sergeant

Future Plans

Aim for the technical lead positions in software development, machine learning and deep learning fields. To deepen my knowledge in signal processing, machine learning and software development and architecture planning.

Professional Experience

Experience in teamwork in various software projects but also experience in independent work. Special skills in developing software for embedded linux systems with c- and c++- languages, creating end-to-end IoT-solutions and using machine learning/deep learning technologies in commercial products. Experience in software definition, requirement, specification and testing tasks and tools for project management.

Professional interests

Transferring state-of-the-art machine learning/deep learning technologies for practical use cases, transferring prototypes / POV (proof of value) concepts to scalable solutions in cloud environments. Microarchitecture mindset in creating architectural plans. Using generative AI tools to optimize sw development life cycle.

Education

1990	Matriculation examination	Ähtärin Lukio, Ähtäri, Finland
1990-2014	Master of Science Major Subject: Digital Signal Processing Minor Subject: Information Technology and Electronics	Tampere University of Technology, Finland

Other Studies and Courses

2007	Symbian/C++ mobile programming education See my LinkedIn profile for other courses and certificates	TAKK, Finland
------	--	---------------

Work Experience

April 2024 -

Solita **Senior AI/Machine Learning Engineer**

Consultant tasks in customer projects including computer vision and machine learning model deployment and Mlops infrastructure design and implementation. For instance, training and deploying semantic segmentation model for real time environment on edge device.

June 2022 - 2024

Private Entrepreneur **Senior AI/Machine Learning Engineer**

Consultant tasks in customer project including computer vision and machine learning model deployment and Mlops infrastructure design and implementation

October 2020 – May 2022

SILO AI **Senior AI Engineer**

Consultant tasks in customer project including full stack software development and machine vision solution implementations.

November 2019 – September 2020

Advian **Machine Learning Specialist**

I and part of the team from CGI moved to continue our journey with machine learning and video analytics in more entrepreneurial environment. Keywords in current projects: Object detection, face and emotion detection, SLAM, stereo image calibration and recording.

December 2017 – November 2019

CGI Next Software Developer

Due to corporate acquisition of Affecto by CGI, my and team's work continues in this organization.

Published cases: <https://www.cgi.fi/fi/uutiset/rakennusalan-ikuisuusongelmaan-puututaan-valtrantymaalla-suojakyparan-kayttamista-seurataan-videonanalytiikan-avulla-reaaliaikaisesti>

May 2016 – December 2017

Affecto Software Developer

Designing video analytic pipelines for customer cases. Algorithm integration and device/hardware optimization for various cost/quality cases. DNN (Deep Neural Network) based machine learning implementations for video analytic and industrial quality assurance projects.

Technologies:

Linux, Microarchitecture design, Pylon SDK, Python, C/C++, Qt Framework, ZMQ, AWS Cloud Computing (AWS IoT, DynamoDB, S3, EC2), Cassandra, OpenCV, Dlib, Neural Network Frameworks (Keras, TensorFlow, Caffe, PyTorch), Machine Learning Frameworks (scikit-learn), Digital Signal/Image Processing Algorithms implemented with Python/OpenCV.

Public use case: Ruisrock 2017:

Our solution to estimate people's gender, age categories and mood won an award in GrandOne this year:

<http://www.grandone.fi/tyot/voittajat/kategoria/paras-datan-kaeyttoe>

December 2015 – April 2016

Parkkisähkö Oy Software Developer

Creating software infrastructure for smart charging of electric cars

Technologies:

IoT, Intel Edison, Python, Django Python Web Framework, REST API, CI (Continuous Integration) with Jenkins, Github and Docker, Virtual Private Cloud resource environment with AWS VPC, auto scalable backend system with AWS Auto Scaling, MySQL Server with AWS RDS

<http://www.parkkisahko.fi/en/>

June 2014 – March 2015

Intopalo Software Developer

Software development tasks in 3d modelling, computer vision and machine learning areas. Participation in designing self-organizing organization/system model. For instance, Holacracy is one implementation of self-organizing system. Prototype/PoV design for predicting epileptic seizures of patients with video analytics. This project continues as spin-off of Intopalo: <http://www.neuroeventlabs.com/>

Technologies:

Linux, Windows, Python, C#, OpenCV, scikit-learn, Video streaming over Gige, LAMP, ffmpeg, AWS S3, CEP (Complex Event Processing), Bluetooth LE, Pylon SDK, MS Kinect 2.0 video, MS Kinect 2.0 audio

July 2011 – December 2015

Koodaripalvelut Oy Recruitment Assistant

Designing job announcements for employer's website, preliminary qualification of applicants

November 2009 – April 2010

Tampere University of Technology Research Assistant

Research to use PSO (Particle Swarm Optimization) in video encoding and decoding processes.

Technologies:

Linux, ffmpeg, Matlab, c++

August 2005 – October 2005

DA-Design Oy Software Developer

Linux server and application administration

June 2004 – February 2005

Nomovok Oy Software Developer

The architecture design, implementation and documentation of Linux graphic and game applications for Nokia Internet Tablet device. Implementation done with objective-c and UI code with GTK SDK.

August 2003 – December 2003

Design Combust Software Developer

Implementation of VLAN controller application modules for embedded linux-system for network router.

September 2002 – January 2003

Nokia Mobile Phones Software Developer

Implementation tasks for IP-protocol modules for mobile phone software with objective-c language.

May 2001 – December 2001

TietoEnator Oy Software Developer

Compression and transfer of video over Bluetooth connection. Implementation in NT and linux environments with c and c++ -languages.

August 2000 – December 2000

Tellabs Oy Software Developer

Implementation of software modules for embedded system for network card in PowerPC and NT environments with c- language.

January 1999 – June 2000

Elektrobit Oy DSP Designer

Implementation and testing of audio signal processing algorithms with c and DSP assembler language in unix- and NT-environments.

TI

November 1997 – April 1998

Nokia Mobile Phones DSP Trainee

Assembler programming for TI DSP-card.

June 1994 – October 1997

Tampere University of Technology Research Assistant

Design and implementation of speech and image processing algorithms with matlab and c-language in unix environment. Participation in SpeechDat-project workshop events. Specification of SpeechDat-project in Finland. Most of work as part-time.

Language Skills

Finnish	native speaker
English	fluent
Swedish	basic knowledge
German	basic knowledge

IT-skills

Operating Systems:

Linux, Unix variants, Windows

Cloud Environments:

AWS, MS Azure, GCP

Good working knowledge of PC-environment and PC applications:

Microsoft Word , Excel, PowerPoint, OpenOffice

Version Management Systems:

ClearCase, Continuous, Subversion, Git, GitHub

Software Development Tools, IDEs:

Visual Studio, Eclipse, GNU toolchain, JetBrains IDEs, Qt Framework, Visual Studio Code, Git Copilot, GPT-4, Claude

UML:

Umbrella, ArgoUML, LucidChart

Positions of Responsibility

Chairman of Tampereen Teekkareiden Eteläpohjalainen Osakunta(TTEPO)

1993-1994

Interests

sports (floor ball aka sähly, hiking)

movies

literature (both technical and fiction)