Guanqun CAO

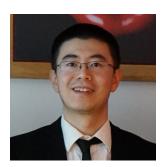
Born in Beijing, P.R. China (1986) Long-term EU resident (P-EU)

Land Architect ADAS Data Architect

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https://gqcao.github.io/



Brief Intro

I am an automotive engineer and entrepreneur with strong background in data mining, pattern recognition and image processing. Meanwhile, I remain engaged in academic activities and collaborations.

SEVERAL HIGHLIGHTS

- 15 years R&D in multimedia analysis and data mining, and 7 years in automotive industry.
- Full-stack data analysis from applied statistics, data mining to data operation (DataOps).
- Adaptive to dynamic work place, a great team player, and excited to work in a diverse team.
- Beijing-born and EU-educated. Used to study or work for long term in 6 European countries.
- PhD leading to top publications, and hold privileged engineering degrees and several awards.

EDUCATION

Tampere University, Tampere, Finland

PhD (with Distinction) in Signal Processing and Computing Science

12/2011-04/2018

CIMET Master Erasmus Mundus, Univ. Jean Monnet, France; NTNU, Norway; Univ. of Granada, Spain

M.S. in Color Informatics and Media Technology

09/2008-09/2010

University of Birmingham, Birmingham, UK

B.Eng(*Hons*) in Electronic & Computer Engineering

10/2007-06/2008

Huazhong University of Science and Technology, Wuhan, Hubei Province, P.R. China B.Eng in Electronic & Information Engineering 09/2004—06/2008

Work Experience

- 1. Data Architect / Sr Machine Learning Engineer at Zeekr Technology Europe AB. Jan 2022 Currently
 - Drive the EU solution for ADAS data architecture. Feb 2025 Currently
 - Define the project strategy and develop solutions focused on "In-Vehicle Health Monitoring".
 2022 Jan 2025
 - Conceived and led a talented team of software developers, business developers, UX designers, and medical experts.
 - Client facing and sales to global OEMs.
 - Supervised six master's students from top European universities in in-vehicle health monitoring and Generative AI, with four achieving distinction. Conducted prototyping on the fastest European supercomputer.
- 2. Sr Data Scientist / Deep Learning Engineer at Volvo Cars. Apr 2018 Dec 2021 Data analytics for safety assurance of autonomous driving
- 3. Contract Researcher (Consultant) at Intel Finland Corp. Sept. 2017 Apr. 2018
 - Machine learning in mobile imaging in the NSF CVDI programme together with Business Finland.
- 4. Contract Researcher (Consultant) at Tieto Oy, Sept. 2016 Aug. 2017
 - Work on research project of 'Comparative Knowledge Discovery: Analyzing, Understanding and Visualizing Rankings' in the site of the NSF CVDI programme.
- 5. Visiting researcher to University of Lousianna at Lafayette and University of Virginia, April 2017.
 - Multi-facet object ranking.
- 6. Researcher at Tampere University of Technlogy, Jan. 2010 Dec. 2017
 - researched and developed new feature descriptors for large scale scene recognition techniques collaborated with Alma Media
 - researched on image/object segmentation techniques
 - took part in MSR-Bing challenge 2013 and develop automation tools on the supercomputer for training machine learning models
 - researched on large scale learning algorithms in the cloud
 - supervised 1 master thesis worker on machine learning for color constancy with Intel
- Research assistant at Laboratoire Hubert Curien, French National Center for Scientific Research (CNRS). 2009.7-2009.8
 - Blur identification, perceptual image quality assessment.

PUBLICATIONS

Google Scholar Link: https://scholar.google.com/citations?hl=en&user=owGiCUkAAAAJ

TALKS

- "Geo-spatial Data Mining Using R!", Why R? 2020 Conference.
- "How will Big Data transform our life?", to students of France Telecom, at New Factory Tampere, July, 2014

Honors

- 1. Tampere University Graduation Award for PhD with Distinction (€1,500), 2020.
- 2. Travel Grant (€3000) for Excellent PhD Researchers in Guangdong Innovation Programme, Oct 2019
- 3. Best student paper award at IEEE IPTA 2016.
- 4. Member of the 2nd winning team in Microsoft Research-Bing challenge 2014
- 5. Erasmus Mundus Scholarship (€42,000 in total) funded by the European Union, Aug 2008 to Aug 2010
- 6. Technicolor award for the project contest winners in 2009 (€1,500 in total)
- 7. International Studentship, University of Birmingham, October 2007

SKILLS AND HOBBIES

Professional skills: Machine/Statistical/Deep Learning, Embedded & Cloud Computing, Multimedia Information Retrieval, Image Processing.

Computer skills: Python, Shell Scripting, Matlab, R, Latex, C/C++, GIMP, Linux

Device capability: Spectral photometer, spectral colorimeter, SMI high-frequency eyetracker

Language Skills: English (excellent), French (intermediate), Spanish (basic), Chinese (native).

Professional services: IEEE Member. Reviewers for IEEE Trans. on Cybernetics, IEEE Trans. on Vehicular Technology, Journal of Visual Communication and Image Understanding, International Conference on Image Processing 2018-2025. Member and Contributor at ML Commons.

Hobbies: Swimming, photography, archery, backpacking.