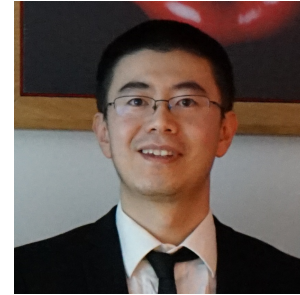


# Guanqun CAO

	Born in Beijing, P.R. China (1986) Long-term EU resident (P-EU)
	ADAS Data Architect <a href="mailto:Firstname.Lastname@ieee.org">Firstname.Lastname@ieee.org</a>
	Astris gata 84, lgh 1101. Göteborg, 41767, SWEDEN
	<a href="https://www.linkedin.com/in/guanquncao/">https://www.linkedin.com/in/guanquncao/</a>



## SUMMARY

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Data Scientist & AI Engineer with over 15 years' experience in multimedia data analysis, machine learning, and applied statistics, spanning the automotive, technology, and research sectors. Special expertise in building end-to-end data products, deep learning for computer vision, and large-scale data mining. Passionate about deploying data science to drive impactful business outcomes and excited to contribute to diverse, international teams.

- 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

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**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

## PROFESSIONAL EXPERIENCE

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**Zeekr Technology Europe AB**, Data Architect / Sr Machine Learning Engineer, Jan 2022 - Currently.

- Led the development of EU-focused ADAS data architecture. Feb 2025 - Currently
- Developed and led project for “In-Vehicle Health Monitoring” solutions in collaboration with medical professional, UX and software competences. 2022 - Jan 2025
- Delivered prototypes using supercomputing resources and presented solutions to global automotive OEM clients.
- Supervised six master's students from top European universities in in-vehicle health monitoring and Generative AI, with four achieving distinction.

**Volvo Cars**, Sr Data Scientist / Deep Learning Engineer, Apr 2018 - Dec 2021.

- Built and deployed perception models for real-time object detection/tracking using Nvidia Drive PX-2, achieving improved tracking accuracy and performance.
- Managed geo-spatial data analytics and scenario recognition for autonomous driving validation.
- Pioneered internal computing infrastructure and data storage solutions.
- Tech lead of 3 trainees/engineers

### Previous Researcher Roles.

- Intel Finland Corp. Machine learning in mobile imaging. Sep. 2017 - Apr. 2018.
- Tieto Oy, Comparative Knowledge Discovery: Analyzing, Understanding and Visualizing Rankings, Sep. 2016 - Aug. 2017.
- Researcher at Tampere University of Technology, multimedia analysis, Jan. 2010 - Dec. 2017.
- Visiting Researcher to University of Louisiana at Lafayette and University of Virginia, April 2017.

## TECHNICAL SKILLS

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**Computing:** Python, Shell Scripting, Matlab, R, SQL, C, GIMP.

**Data Science & AI:** Computer vision, pattern recognition, deep learning (PyTorch, Keras), vLLM, LLaMA-Factory.

**MLOps:** MLflow, model versioning, Docker, CI/CD, Git.

**Platforms:** Apache Spark, Airflow, AWS, Azure, GCP.

**Data Engineering:** ETL, Grafana.

**Compliance:** EU Data Act, GDPR

## HONORS AND AWARDS

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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

## PUBLICATIONS

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

## PROFESSIONAL SERVICES

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- 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.