



# Dr. Andrej Mikulik

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## Work experience

*since 2014*

### Google

Software engineer, Tech lead. Private search, Internationalization.

*2009*

### Microsoft Research Cambridge

Cambridge Lab Internship Program

Implementation of high speed content based image search engine using image features and inverted file indexing under supervision of Dr. Andrew Fitzgibbon

*2006–2009*

### Logio s. r. o.

Analyst and software developer,  
working mainly on time series analysis, data extrapolation, promotional analysis and forecasting for demand planning, database and code performance optimization

*2006–2010*

University robotic team MART

Founder and team leader,

working mainly on computer vision, autonomous robot guidance system, representing faculty on competitions like Eurobot or Robotour

## Education

*2010–2014*

### Czech Technical University in Prague

Faculty of Electrical Engineering

Center for Machine Perception

PhD student under supervision of Prof. Jiri Matas

Supported by the Microsoft Research PhD Scholarship program

*2004–2010*

### Charles University in Prague

Faculty of Mathematics and Physics

2007 graduated with honours - Bachelor of Computer Science

2010 graduated with honours - Master of Computer Science

## Relevant skills

### Computer Vision, Machine Learning, Robotics

**C/C++, Java, C#, MySQL, MSSQL, Oracle RDBMS, Cassandra NoSQL DB, Node JS**

**Matlab**, Wolfram Mathematica, GIT, SVN

Windows, Linux at the administration level

Mathematical background (statistics, analysis, econometrics)

## Experience with

shell scripts, HTML5, JavaScript, CSS, PHP, Python, Assembler, Prolog, Haskell

## Publications

Mikulik A., Radenović F., Chum O., Matas J.

### **Efficient Image Detail Mining**

In proceedings of ACCV 2014

Mikulik A., Chum O., Matas J.

### **Image Retrieval for Online Browsing in Large Image Collections**

In proceedings of Similarity Search and Applications 2013

Mikulik A., Perďoch M., Chum O., Matas J.

### **Learning Vocabularies over a Fine Quantization**

International Journal of Computer Vision 2012

Chum O., Mikulik A., Perďoch M., Matas J.

### **Total Recall II: Query Expansion Revisited**

In proceedings of Computer Vision and Pattern Recognition 2011

Mikulik A., Perďoch M., Chum O., Matas J.

### **Learning a Fine Vocabulary**

In proceedings of European Conference on Computer Vision 2010

Mikulik A., Matas J., Perďoch M., Chum O.

### **Construction of Precise Local Affine Frames**

In proceedings of the International Conference on Pattern Recognition 2010

Mach L., Mikulik A., Basovnik S., Obdržálek D.

### **Detecting Scene Elements Using Maximally Stable Colour Regions**

In proceedings of the International Conference on Research and Education in Robotics 2009

Mikulik A., Obdržálek D., Petrůšek T., Basovnik S., Dekar M., Jusko P., Pechal R., Piták R.

### **Logion - A robot Which Collects Rocks**

In proceedings of the International Conference on Research and Education in Robotics 2008

## Languages

**English (fluent), German (basic),** Slovak (mother tongue)

## Interests

Education, programming, sports in general, classical music (I used to play the akordeon, the clarinet and the acoustic guitar)