



# Necati Çağatay Gürsoy | Resumé

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📅 caggursoy • 05.09.1993

*"Standing on the shoulders of giants"*

Cognitive Scientist who is currently pursuing a PhD Degree in Sleep and Memory Neuroscience. Passionate about philosophy of science, machine learning and artificial intelligence.

## Education

### Academic Qualifications

- **Zentralinstitut für Seelische Gesundheit (ZI) Mannheim** **Mannheim, Germany**  
*PhD Neuroscience,* *September 2019 - cont.*
- **Middle East Technical University** **Ankara, Turkey**  
*MSc. Cognitive Science,* *February 2017 - July 2019*
- **Bilkent University** **Ankara, Turkey**  
*BSc. Electrical and Electronics Engineering,* *September 2011 - January 2016*
- **Gurcag Private High School** **Ankara, Turkey**  
*Science High,* *2007 - 2011*

### Notable Projects

- **PhD Research Project:** *'Targeted Extinction of Drug Cues During Sleep (TEDDS)'*  
Ongoing research project in ZI Mannheim / Dept. of Clinical Psychology / RG Psychology and Neurobiology of Sleep and Memory. Research project is aiming to acknowledge the neural processes of possible extinction of drug related maladaptive memories via presenting drug cues during deep sleep.
- **MSc Research Project:** *'Cross-Age Effect in Neural Networks: A Study on Facial Age Recognition Bias in Neural Networks'*  
Research project in METU CogSci Department. Project have two stages; first stage is testing facial age recognition bias on humans by showing human faces and asking them to guess the ages. Second stage is to construct a ML system in order to imitate the human performance and contrast the performance between human and the machine.  
Initial findings were presented in Second Open Research Day of METU Informatics Institute in May 2018. Awarded with a Special Mention.
- **Visual Cognition Course Project Paper:** *'Visually Salient Art: Comparison of Eye-Tracking Data with Visual Saliency Algorithms on Famous Renaissance Paintings'*  
The research project was focused to achieve Visual Saliency on couple of Renaissance and Modern Artworks with using California Institute of Technology's MATLAB toolbox SaliencyToolbox. Paper was written during Visual Cognition course.

- **Computational Neuroscience Course Project:** *'Analyzing Structural Connectivity by Diffusion Tensor Imaging with Tractography on Structural MRI Data'*

The research project was focused to analyze the structural connectivity in the brain. A DTI toolbox which was run on MATLAB was used in the project.

## Publications, Awards and Mentions.....

- **Deep Face Perceiver - Digital artwork** *My artwork "Deep Face Perceiver" was exhibited in two exhibitions in Switzerland as a part of Figure 1.A. 5th edition. Figure 1.A. is an international science-art exhibition. The artwork was derived from my Master's research.*
- **Mention award in Second Open Research Day of METU Informatics Institute** *Initial findings of my Master's research were presented. Awarded with a Special Mention.*

## Notable Courses Taken.....

- **Statistical Parametric Mapping for fMRI/VBM:** *A course on SPM software package that has been designed for the analysis of brain imaging data sequences. Attended online in May 2021, given by UCL*
- **Artificial Intelligence for Cognitive Science:** *AI course designed to fit CogSci purposes. AI agents and Networks were studied.*
- **Visual Cognition:** *Course was designed to point out the key points of visual system and visual cognition.*
- **Computational Models of the Mind:** *Nengo and ACT-R were encouraged to use to get a grasp on computational models of the human 'mind'.*
- **Connectionism and Human Behaviour:** *PDP and Artificial Neural Networks were the main points.*
- **Brain Dynamics and Oscillations:** *During the course, EEG and MEG data were studied to further understand the dynamics of the brain.*

## Teaching Experience

- **Bilkent University Department of Computer Science** **Ankara, Turkey**  
*Teaching Assistant for CS 114 - Programming for Engineers II* *September 2015 - January 2016*  
 I worked as a Teaching Assistant during lab hours. The course was focused on JAVA.
- **Bilkent University Department of Computer Science** **Ankara, Turkey**  
*Teaching Assistant for CS 113 - Programming for Engineers I* *June - August 2014*  
 I worked as a Teaching Assistant during lab hours. The course was focused on MATLAB.

## Technical and Personal skills

- **Spoken Languages:**  
 English(Full Professional Proficiency), Turkish (Native), German(Intermediate)
- **Programming Languages:**  
 Proficient in: Python, Java, MATLAB  
 Also basic to mid-level ability with: R, VHDL, SPSS, Nengo, ACT-R, VBA, TeX, Arduino, C

## Test Scores

- **TOEFL (November 2015):** 98 = Reading: 28 / Listening: 27 / Speaking: 22 / Writing: 21
- **ALES (November 2015):** SAY - 80 / EA - 82

## References

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- **Dr. rer. nat. Gordon Feld** Head of Research Group, Psychology and Neurobiology of Sleep and Memory, Department of Clinical Psychology, ZI Mannheim
- **Prof. Dr. Peter Kirsch** Department Head, Department of Clinical Psychology, ZI Mannheim
- **Asst. Prof. Murat Perit Cakir** Department of Cognitive Science, Graduate School of Informatics, METU
- **Assoc. Prof. Tolga Esat Ozkurt** Department of Health Informatics, Graduate School of Informatics, METU

## Free-Time Activities and Memberships

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### Free-Time Activities.....

- I am interested in reading books and articles especially in European and Turkish history between Ancient Greek times and mid-20th century. Also I am keen on researching European and Middle-Eastern epics.
- Since I have moved to Germany I have started cycling and it has evolved into my favourite pastime activity. Click **here** to check my Strava profile!
- I am also interested in researching (and of course viewing) mid-to-late 20th century Art and so-called 'Contemporary Art'.

### Membership.....

- German Psychological Society (DGPs)
- Bilkent Photography Club