

Ozan Çağlayan

Education

- 2014– **PhD**, *University of Le Mans*, France.
Language Speech and Technology (LST) Team
Topic: Neural Machine Translation (Supervisors: Loïc Barrault, Fethi Bougares)
- 2011–2014 **MSc. Computer Engineering**, *Galatasaray University*, Turkey, *GPA 3.93/4.0*.
- 2004–2008 **BSc. Computer Engineering**, *Galatasaray University*, Turkey, *GPA 3.2/4.0*.
- 2007 **Erasmus Exchange**, *Université Joseph Fourier*, Grenoble/France.
- 1996–2004 **High School**, *Lycée Saint-Joseph*, Turkey, *GPA 4.4/5.0*.

Master Thesis

- Title A Portable and Embedded SSVEP BCI System: emBCI
- Supervisor R. Burak Arslan
- description The aim of this thesis was to design a portable and affordable brain-computer interface using Emotiv EPOC EEG and Raspberry Pi.

Experience

- 2012– **Teaching Assistant**, *Galatasaray University*, Turkey.
Teaching assistant for *Algorithms and C Programming*, *Operating Systems*, *Microprocessors*.
- 2007–2012 **Software Developer**, *Scientific & Technological Research Council of Turkey (TUBITAK)*.
Department: Pardus Linux distribution
- Open-source community volunteering, downstream/upstream coordination of several core Linux components including Linux kernel, drivers, connectivity.
 - Release management and quality assurance of Pardus Linux Enterprise Edition.
 - Maintenance and development of critical components of Pardus including package manager, hardware subsystem, continuous build infrastructure.
- Summer 2007 **Intern**, *Scientific & Technological Research Council of Turkey (TUBITAK)*.
Department: Pardus Linux distribution
Improved the Python codebase of continuous build servers of Pardus Linux distribution and added web interface support.
- Summer 2006 **Intern**, *Scientific & Technological Research Council of Turkey (TUBITAK)*.
Department: Optoelectronics Laboratory
Developed an in-house C library by implementing several image processing algorithms for edge detection, color correction, histogram operations and sharpening.

Miscellaneous

- Summer 2013 **Google Summer of Code**, *QEMU Project*, Mentor: Michael D. Roth (IBM).
Integration of copy/paste ability between QEMU supervisor and guests.
- Summer 2012 **Google Summer of Code**, *Linux Foundation*, Mentor: Luis R. Rodriguez (Qualcomm).
Development of Linux Kernel compat layer for building latest graphics drivers on old kernels.

Publications

- 2016 Çağlayan, O., Barrault, L., & Bougares, F. Multimodal Attention for Neural Machine Translation. arXiv preprint arXiv:1609.03976.

- 2016 Caglayan, O., Aransa, W., Wang, Y., Masana, M., García-Martínez, M., Bougares, F., Barrault, L., & van de Weijer, J. Does Multimodality Help Human and Machine for Translation and Image Captioning?. In Proceedings of the First Conference on Machine Translation, Berlin, Germany. Association for Computational Linguistics.
- 2013 Caglayan, O., & Arslan, R. B. Humanoid Robot Control with SSVEP on Embedded System. In Proceedings of the Fifth International Brain-Computer Interface Meeting, California/USA.
- 2013 Caglayan, O., & Arslan, R. B. Robotic Arm Control With Brain Computer Interface Using P300 and SSVEP. IASTED International Conference Biomedical Engineering (BioMed 2013), Innsbruck/Austria.
- 2012 Caglayan, O., & Arslan, R. B. P300 based auditory visual brain computer interface. IEEE 20th Signal Processing and Communications Applications Conference (SIU), Turkey.

Attendance

- 12/2016 Neural Information Processing Systems (NIPS), Barcelona/Spain
- 10/2016 Mathematical Foundations of Artificial Intelligence, Nesin Matematik Koyu, Sirince/Turkey
- 10/2015 Deep Learning for Machine Translation Winterschool, Dublin/Ireland
- 08/2015 DTU Deep Learning Summer School, Copenhagen/Denmark
- 02/2014 Berlin BCI Winterschool on Neurotechnology, Berlin/Germany
- 07/2012 International Summer School and Workshop on Brain Dynamics, Turunc/Turkey
- 05/2012 State-of-the-art in Signal and Image Processing, Nesin Matematik Koyu, Sirince/Turkey

Computer Skills

- Programming C, C++, Python, NumPy, Theano, Keras, TensorFlow
- Misc Arduino, Processing

Research Interests

Deep Neural Networks, Neural Machine Translation, Image Captioning, Multimodality
EEG-based Brain-computer Interfaces, Signal Processing

Contributed Software

- Python Neural Machine Translation in Python (nmtpy)
github.com/lium-1st/nmtpy
- C/C++ Continuous Space Language and Translation Modeling Toolkit
github.com/hschwenk/cslm-toolkit
- Python Emotiv EEG Data Acquisition Library
github.com/ozancaglayan/python-emotiv

Languages

- Turkish Native
- English Fluent (IELTS: 8)
- French Fluent

Interests

- Photography DSLR, Retouch
- Music Guitar, Piano