Onur **Ferhat**

FULL-STACK DEVELOPER · DATA SCIENTIST

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Summary

Full-stack developer with **machine learning** & **computer vision** skills. Fluent in Python, C++, C#, Matlab, Django, OpenCV and the usual web stuff (HTML, CSS, JS) to get things done.

Education

Autonomous University of Barcelona   *Barcelona*
PHD IN COMPUTER VISION   *2011–(2016)*
- Thesis on **webcam-based eye tracking algorithms.**
- Exploring robust gaze estimation methods that are not affected by head movements.

Autonomous University of Barcelona   *Barcelona*
MSC IN COMPUTER VISION AND ARTIFICIAL INTELLIGENCE   *2011–2012*
- Hands-on experience in **image processing**, **machine learning** and **artificial intelligence**.

Bogazici University   *Istanbul*
BSC IN COMPUTER ENGINEERING   *2004–2009*
- One of the top computer engineering degrees (top **0.03 percentile** in university entrance exams).
- Courses on **robotics**, **artificial intelligence** (MSc level), **pattern recognition** (MSc level) in the senior year.

Experience

Banksoft - Payment Systems Solutions   *Istanbul*
SOFTWARE DEVELOPER   *2009–2011*
- Worked on issuing (preparation for customers) of **EMV-compliant chip cards** for major Turkish and international banks.
- Management of **security data**, and implementation of required changes for new card products (new chip cards, campaigns, etc.).
- **Deploying** updated components **to production** servers of banks.
- Actively participated in the project revolutionizing the company's legacy systems.
- Developed a **feature-packed editor** (side-by-side comparison, error checking, etc.) for the file format used in card issuing.

Imovasyon   *Istanbul*
FULL-STACK DEVELOPER   *2009*
- Development of a **QR code** management and analytics system.
- Connection with Microsoft Tag, Facebook, SMS sending APIs.
- Developed an **API** to allow simultaneous creation and management of QR codes and Microsoft Tags.
- Developed a **URL shortener** to compress the encoded data.

Inveon   *Istanbul*
FULL-STACK DEVELOPER   *2008–2009*
- Worked on **C#** web projects for internal use of many large companies.
- Projects in **several sectors** (pharmaceutics, insurance, etc.).

Honors

2014	**Google Research Award**, Awarded to my supervisor Dr. Fernando Vilariño for his project proposal.
2009	**Honors Degree**, Graduated with a GPA of 3.49 and awarded an honors degree.
2004	**Nationwide Success**, 141st among ~1.5 million students in University Entrance Exams (OSS).
2001	**Nationwide Success**, 5th among ~600 thousand students in High School Entrance Exams (LGS).

Projects

Eye Tracker: The software for my thesis is written in C++ and makes use of several libraries for **image processing** (OpenCV), **machine learning** (FANN, dlib) and other tasks (Boost, Qt, CUDA).

Memory Fields: What started as an attempt to explore how **computer vision** and **art** may intersect (together with **Dan Norton** and **Dr. Fernando Vilariño**), resulted in an interactive application resembling a DJ deck. The system allows mixing collections of sounds and images to create compositions that react to changes in the sounds, and save them in a *field of memories*.
The project was presented in **Sonar +D 2015** and is currently installed at **Volpelleres Living Lab**.

Broquil: Broquil is a Django-based management system for consumer cooperatives. It was a personal project mainly with the objective of learning new skills (**Django, Bootstrap**, etc.) and keeping my old skills fresh (HTML, JS, CSS).

Dictionary: My first take on creating an easy to use dictionary for minority languages is based on **ElasticSearch** and **AngularJS**. The first online prototype uses an open source list of translations between Turkish and Zazaki language.

Skills & Courses

Programming	Python, C/C++/C#, Matlab, SQL
Libraries	OpenCV, boost, dlib, GraphLab Create, SFrame, numpy, scikit-learn, MatConvNet
Web	Django, ElasticSearch, JavaScript, Bootstrap, HTML, CSS, Backbone.js, jQuery, AngularJS
Languages	Turkish, English, Spanish, Catalan

Courses
- Several **machine learning** courses from Coursera (with Python).
- Internal workshop on **deep learning** with MatConvNet toolbox.