# Bugra Ozkan

# EDUCATION WORK EXPERIENCE

## MS IN COMPUTER SCIENCE

CGPA: 3.64/4.00 High Honor Student Middle East Technical University (Among world's top 80 universities) 2010 - 2014

# BS IN COMPUTER ENGINEERING

CGPA: 3.06/4.00 Honor Student Middle East Technical University 2005 - 2010

# **STRENGTHS**

#### **PROGRAMMING**

 $C \bullet C++ \bullet C\# \bullet Go$ .NET  $\bullet$  JS  $\bullet$  Python **Web** 

HTML5 • CSS/SASS Typescript • Node.js Angular • Meteor React • Rails MongoDB • MySQL Jade • Ajax • Karma Protractor • Mocha

Socket.IO • D3 Bootstrap • Ionic

Jenkins • gulp

Redis • AWS

#### MOBILE

Android SDK PhoneGap/Cordova

#### RESEARCH

Computer Vision
Machine Learning
Pattern Recognition
Remote Sensing
Perceptual
Organisation

VISION

Matlab • OpenCV Kinect SDK

GRAPHICS

OpenGL VERSION CONTROL

Git • SVN

# STRATAGEM | SENIOR FULL-STACK WEB ENGINEER (JUL 2015 - NOW)

**Tech:** Node.js, Angular, Go, Python, MongoDB, Redis, Cassandra, RabbitMQ, AWS I am one of the three full-stack developers of

- **stratabet.com** football betting app that combines predictive algorithms with human analysis to show you the best betting opportunities
- **stratapro.co** a sports trading platform with a combination of ML, performance analysis and financial trading information
- stratasport.com an odds aggregator and match analysis platform
- stratatips.co a subscription based platform providing betting tips
- onsideanalysis.com data collection platform for Stratagem analysts

# BE-TECH | Founder & Engineer (APR 2013 - JUL 2015)

Tech: Rails, .NET, Kinect SDK, Meteor.js, React, MongoDB, Phonegap, Ionic

- I developed **Be-Board**, a gesture-controlled, cloud based interactive white board using Kinect, and sold it to several elementary and high schools
- I designed and developed projects below for myself & my customers:
  - nearent.com a C2C rental marketplace with delivery and insurance features
  - podcast.gift online podcast sharing platform, developed for Panda Network https://www.producthunt.com/tech/podcast-gift-2-0
  - wobomo.com Q&A based social networking platform
  - hyperfixers.com online repair community where you share repairs and find repairers
  - mottom social networking mobile application for Turkish audience to share quotes - available on both App Store and Google Play
  - ballot mobile application for online voting available on App Store and Google Play
  - ce-kettle mobile application to control a Wi-Fi kettle using Arduino (In collaboration with a Master's Degree Graduation Project in RCA)

## MIDDLE EAST TECHNICAL UNIVERSITY (SEP 2010 - SEP 2014)

- Teaching Assistant of
  - Fundamentals of Image Processing
  - Introduction to Computer Graphics
  - Introduction to Embedded Systems Development
  - Computer Engineering Design
  - Data Communications and Computer Networking courses
- Research Assistant in (project details are provided in the following page)
  - Hasat Project
  - Border Ownership Estimation Project
  - Turkcell Remote Sensing Project

# V-COUNT | SOFTWARE ENGINEER (MAR 2010 - AUG 2010)

Tech: .NET, C#, OpenCV, Embedded Linux

• Worked in an automatic number plate recognition project

## **PUBLICATIONS**

#### MASTER'S THESIS

Estimating Border Ownership Using Iterative Vector Voting and Conditional Random Fields

#### JOURNAL

(In peer review)
M. Akkus, G. Topuz, B.
Ozkan, and S. Kalkan.
Analysis of Visual Cues
and a Computational
Model for Border
Ownership. CVIU

#### Conference

B. Ozkan and S. Kalkan. Extraction of border ownership information by conditional random field model. In IEEE 21st Signal Processing and Communications Applications Conference (SIU), pages 1-4, April 2013.

M. Akkus, G. Topuz, B. Ozkan, and S. Kalkan. A comprehensive database for border ownership. In Signal Processing and Communications Applications Conference (SIU), IEEE 21st, pages 1-4, April 2013.

# LANGUAGES

English: Fluent Turkish: Mother tongue French: Beginner German: Beginner

# AWARDS & ACHIEVEMENTS

2017	XRC Labs	Nearent has been selected among "10 most promising startup companies from around the world" and awarded funding in amount of \$125,000"
2012	Be-Board	Admitted to TUBITAK Gradual Support for Individual Entrepreneurs Program - awarded prize of TL100,000
2010	Turkcell	Admitted to the <b>Turkcell Technology Leaders</b> scholarship program

 $2005 - 720^{th}/\,1.5$  million  $\,$  National Student Selection Examination

# RESEARCH PROJECTS

# BORDER OWNERSHIP ESTIMATION PROJECT | RESEARCHER

• Project goal: Estimating border ownership and acquiring accurate visual information from images using this information for perceptual organization

### I developed:

- two different estimation models based on Tensor Voting and Conditional Random Fields
- an online border ownership annotation tool, and a data set of 1003 images with border ownership labels (collaboratively with other researchers)

#### **HASAT** | Research Software Developer

- Project goal: Automatic target detection & recognition from aerial images
- Involves over 150 targets, 50 project members and several associates including Turkish Armed Forces, Middle East Technical University and five companies

#### I developed:

- a rule-based, ontological target recognition framework
- a context-aware CRF model to solve target disambiguation problem
- detection algorithms for invasion and landing areas using Support Vector Machine & rule-based methods

#### TURKCELL REMOTE SENSING PROJECT | RESEARCHER

 Project goal: Finding the most appropriate locations to build base stations by detecting growth and increase rates of trees & buildings

## I developed:

- a supervised tree detection algorithm
- a building detection algorithm using spectral & spatial cues of shadows and buildings
- a complete remote sensing software (collaboratively with other researchers) using MATLAB, Google Earth API and .NET framework

# PERSONAL DETAILS

I love playing basketball, bowling and Texas Hold'em Poker.