# Bugra Ozkan

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## **EDUCATION**

# MS IN COMPUTER SCIENCE

CGPA: 3.64/4.00 Middle East Tech. Univ. (Among world's top 80) 2010 - 2014

# BS IN COMPUTER ENGINEERING

CGPA: 3.06/4.00 Middle East Tech. Univ. 2005 - 2010

## **STRENGTHS**

#### **PROGRAMMING**

JS • Go • C++ • Python Web

Node.js • Angular

Meteor • React

MongoDB • Express

jQuery • Apache Kafka

Protractor • Mocha

Chai • Sinon

Socket.IO • D3

Bootstrap • Ionic

Jenkins • gulp • Redis

AWS • Google Cloud

Splunk • GoCD

HTML5 • CSS/SASS

Grafana • Prometheus

#### Mobile

PhoneGap/Cordova

#### RESEARCH

Computer Vision
Machine Learning
Pattern Recognition
Remote Sensing
Perceptual Organisation

#### VISION

Matlab • OpenCV

VERSION CONTROL

Git • SVN

PROJECT MANAGEMENT

Jira • Asana • Trello Basecamp

## **WORK EXPERIENCE**

# **COMPARE THE MARKET | SENIOR SOFTWARE ENGINEER** (DECEMBER 2018 – )

**Tech:** Node.js, React, GoCD, MongoDB, Express, Kafka, Prometheus, AWS

• Development & maintenance for Rewards platform of comparethemarket.com

#### NEARENT | Co-Founder (2018)

Tech: Node.js, Rails, MySQL, AWS

• **nearent.com** - a C2C rental marketplace with delivery and insurance features

## **STRATAGEM** | FULL-STACK WEB ENGINEER (2015 - 2018)

Tech: Angular, Node.js, Go, Python, MongoDB, Redis, Cassandra, RabbitMQ, AWS

- **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 sports analysts

## **BE-TECH** | Founder (2013 – 2015)

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

Developed **Be-Board**, a gesture-controlled, cloud based interactive white board using Kinect, and sold it to several elementary and high schools.

Designed and developed projects below for myself & my customers:

- 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

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

- Teaching Assistant of Fundementals 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 | PART-TIME SOFTWARE ENGINEER (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

## **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 <sup>th</sup> / 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

## PERSONAL DETAILS

- I currently have a Tier 2 UK visa for 3 years.
- I love playing basketball, bowling and Texas Hold'em Poker.