# Bugra Ozkan

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## **FDUCATION**

# MSc in Computer Science

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

# BSC IN COMPUTER ENGINEERING

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

# STRENGTHS

#### **PROGRAMMING**

Javascript • Go • Java Python • C++

#### **WEB**

Node.js • Angular
Meteor • React • Vue
MongoDB • Express
jQuery • Kafka • Jasmine
Protractor • Mocha
Chai • Sinon • Cypress
Socket.IO • D3.js
Jenkins • gulp • Redis
AWS • Google Cloud
Splunk • GoCD
HTML5 • CSS/SASS
Grafana • Prometheus
Docker • Kubernetes

#### 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**

# CREDIM | CTO - STOCKHOLM (MAY 19 - JUL 20)

Node.js, React, Python, MongoDB, Express, Karma, Mocha, Chai, Sinon, AWS

• Development & maintenance of an online credit decision app

## BGL GROUP | SENIOR SOFTWARE ENGINEER - LONDON (2018 - 2019)

Node.js, React, MongoDB, Express, Kafka, Prometheus, Splunk, Mocha-Chai-Sinon, Cypress, Kubernetes, AWS, GoCD

• Development & maintenance for Rewards platform of comparethemarket.com

# **NEARENT** | CTO - LONDON (2017 - 2018)

Node.js, React, Jest, Ruby on Rails, MySQL, AWS

• nearent.com - C2C rental marketplace with delivery and insurance services

### **STRATAGEM** | SOFTWARE ENGINEER - LONDON (2014 - 2017)

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

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

## MIDDLE EAST TECHNICAL UNIVERSITY ANKARA - (2010 - 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
- **Researcher** in three projects (details are provided in the following page)

#### V-COUNT | Part-Time Software Engineer (2010)

.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

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

# **ACHIEVEMENTS**

- Nearent got accepted to XRC Labs among 10 most promising startup companies from around the world and awarded seed funding
- 2010 Recipient of Turkcell Technology Leaders scholarship program for Master's Degree
- 2005 Ranked **720th** out of 1.5 M examinees in the Undergraduate Placement Exam in Turkey

# RESEARCH PROJECTS

# **BORDER OWNERSHIP ESTIMATION PROJECT** | RESEARCH ENGINEER

• 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 associates including Turkish Armed Forces, Middle East Technical University and a dew defense industry companies

# I developed:

- a rule-based, ontological target recognition algorithm
- a context-aware CRF model to solve target disambiguation problem
- detection algorithms for invasion and landing areas using SVM & 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:

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