



# Emre Balsever

PYTHON BACKEND DEVELOPER

+46 76-445-8880 • Tenstagången 55, Lgh:2304, Stockholm, 16364, Sweden • balsever@kth.se

## LINKS

Last Project

GitHub

LinkedIn

ResearchGate

## SKILLS

Machine Learning

Deep Learning

Apache Spark

Data Analysis

Python

SQL

CI/CD

AWS - GCP - Azure Cloud  
Services

## PROFILE

First of all, thanks for reading my CV. Instead of going through this document I highly recommend you to visit [my interactive CV page](#), I think PDFs look messy. Best wishes.

I am a Python Backend developer with an extensive experience in Python, SQL, and Cloud services. Recently, I have been working as a developer in the European Union project to develop visualization (GUI) as well as back-end development for the large-scale database at KTH Royal Institute of Technology.

I graduated in 2015 since then I am half into the academia and half into the industry. So, I'm not only a PhD student but also an engineer with almost 7 years of experience.

I specialized in system design and developed overall service pipelines using many tools and techniques in Python, Bash, and SQL. The pipelines also included cloud services AWS, Azure, and GCP. I've used 3 of them because my previous employer was a startup and we mostly designed pipelines for other companies(e.g. Boutiquerugs/Azure, VF CORP/GCP, Faladdin/AWS).

I am a PhD in AI/ML. I have an access to HPC(High-Performance Computing) cluster in Türkiye(under the EuroCC project).

I also play with Big Data and Deep Learning. (DataBricks(or Horovod) and TensorFlowOnSpark)

I am a big fan of agile development, we are human beings, and we need methods and automation.

## EMPLOYMENT HISTORY

### Python Backend & GUI Developer at KTH Royal Institute of Technology, AlbaNova , Stockholm

June 2022 — Present

I support the research team in the Nanochemistry Lab with the various software modules. I help them to store experiments' data in a manageable way, analyze using ML, and report using visualization tools. In this way, they have a chance to focus on their research topics and find their way through the experiments' data.

### Data Engineer at RNV Analytics, Istanbul

October 2021 — June 2022

I created the stock allocation service(KLIBRE) by designing an algorithm on the Apache Spark engine. This made it possible to predict weekly 100k sales for 10k products and various sorties for more than 100 stores in less than 1 hour for 1 customer. On top of this, based on sales predictions and other rule-based services our system was designed and successfully scaled

& implemented for other customers. I have met the team's needs by creating scraping data pipelines, integration runtimes, jump servers, database connections, etc.

### **AI/ML Researcher at Startup Project on text generation software / NLP, Istanbul**

January 2021 — June 2021

This project aimed to create a web application to automate layout generation for text contents. I contributed to the project with state-of-the-art NLP models like transformers in Turkish Language. The aim was to create a text structure with possible headers and sub-headers for a specific topic.

### **AI/ML Researcher at Startup Project on on-board security device design, Istanbul**

January 2020 — December 2020

I designed the hardware/software using keyword detection and firearm detection techniques on a RaspberryPi setup. for the startup project to build a new portable security device.

This was challenging because we had to make it possible using raspberry pi in a closet-circuit without having an internet connection, so it was not exactly an IoT project. We had to train and use light models with TensorFlow.

### **Software Development Specialist at Corvisio, Istanbul**

June 2019 — November 2019

In my first experience as a developer, I was able to work with the developer team as a full-stack developer and successfully extend CRM software with a new "invoice" module in 6 months although I had no idea about Ruby Programming Language before.

### **Co-Founder at High Performance Computing Cluster, Istanbul**

January 2018 — April 2019

In this project, by myself, I have designed and assembled mining rigs with more than 40 GPUs (approx 500 MH/s hash rate), and have done maintenance during this period by optimizing the profit margin for Crypto mining.

During this period, I also learned many things about technical analysis, economical systems, etc.

Cluster details:

160 GB / GDDR5 Ram

7 Gbps / Memory Speed

3000 Watt / Power

### **Co-Founder at Grandesk Coworking Space, Istanbul**

January 2017 — December 2017

My cousin and I have managed to create a new brand and gained wonderful experience in less than 1-year by creating a friendly, self-service working space. We have hosted many project teams during this time. We have encouraged people to come together, collaborate and share their ideas in a friendly environment.

### **Electrical and Electronics Engineer at Golday Kauçuk, Osmaniye**

August 2016 — December 2016

- Performed minor maintenance and repairs on PLC machines and equipment as necessary.
- Oversaw production to ensure safe practices and equipment function.
- Made sure all equipment in use is suitable for its purpose ensuring that it remains so via regular electrical safety checks and maintenance



## EDUCATION

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### Visiting Researcher at Halmstad University, Halmstad

January 2022 — June 2022

I was involved in courses with hands-on labs and successfully completed projects. Since then, I am working on a project on object pose estimation to accomplish grasping tasks for an industrial robotic arm in the CERES lab, to experience real applications of deep learning projects.

Main subject / occupational skills covered:

- Big Data Parallel Programming (GCP & Apache Spark)
- Learning Systems
- Deep Learning ( HPC, TF, 6 dof pose est.)

### Ph.D. at Istanbul University, Istanbul

September 2019 — Present

I changed my major successfully from Electronics to CS, completing 1-year scientific preparation. After that, I have been a part of many research projects with other academicians and startups, I contributed to their projects with state-of-the-art techniques.

### M.Sc. Electrical and Electronical Engineering at Istanbul University, Istanbul

September 2016 — December 2018

I was a member of Computational Intelligence and Machine Learning Research (CIML) Lab that our research area was related to the theoretical and algorithmic background of computational intelligence, machine learning including deep learning, artificial intelligence with applications to computer vision, bioinformatics of the systems, matrix theory, big data, decision support systems, recommender systems, and specific data mining tasks.

Thesis Topic: Estimation of energy consumption demand with artificial intelligence methods

### Bachelor Degree, Electrical and Electronical Engineering at Fatih University, Istanbul

September 2010 — June 2015

Thesis Topic: Autonomous Traffic Assistant Implementation using FPGA

## INTERNSHIPS

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### Trainee RFID Card System Engineer at Fatih University IT Department, Istanbul

July 2014 — September 2014

- Diagnosed and repaired issues with card entry systems.
- Oversaw and planned specifications for new systems setup.
- Worked on Turnstiles, Magnetic Locks, Microprocessors, Raspberry Pi.

### Trainee Electrical & Electronical Engineer at EÜAŞ AMBARLI POWER PLANT, Istanbul

June 2014 — July 2014

- Observed the diagnosis and repair of electrical circuits and wiring.
- Observed Very High Voltage systems and power plant areas.
- Experienced how to monitor control room system procedures.