

# Mehmet Egemen Albayrak

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## VALUE PROPOSITION

I help organizations to create differentiations for competitive advantage in the fields of Governance and Products along with high technical capabilities to make the competitive advantages real. My very long history of programming allowed me to play with the fundamental constraints and methodologies of Software Engineering and thus with the philosophical background I have, I create business specific and compliant solutions for companies to take them off. As a natural teacher and leader, I give direction and knowledge to teammates so we can be aligned on the abstractions and integrations that composes our technical advantage in the market.

## WHO AM I

I am a person who is spiritual, empathetic, and thinks prayer = learning thus learns the entire day of the entire life. I believe knowledge is power and additively, multiplicatively or exponentially the distributed power the internet gives to us is a great opportunity to solve real and tough problems of the world. Thus I am a great problem solver and dedicated helper.

## ABOUT MY EXPERIENCE

I have been programming for 20 years, 11 years freelancing, and almost 3 years working in startups. I made over 100 projects due to my love of programming in the last 20 years, and experienced every corner of programming. In the following sections you will see my work experience and projects.

## EXPERIENCE

### **Lisk & Lightcurve, Berlin** – *Backend Developer*

APRIL 2021 – JUNE 2022

- Did Typescript Library development for an Sidechain Development Kit that is selected in Top 10 blockchain technologies by China and basis of a utility token that has hundreds of millions of dollars market cap.
- Translated advanced Computer Science research into library implementations adhering to traditional Software Engineering principles, projecting my extensive experience into the library creating a balance of simplicity and extendibility.
- Contributed to research and done research. Worked with data structures like Bloom Filters, Sparse Merkle Trees. Due to implementation and study of Cryptography, I developed a strong basis for doing Computer Science research.

## **BiLira, Istanbul** – *Fullstack Developer*

JANUARY 2020 – DECEMBER 2020

- Created critical systems of ETL and automatic token issuance that is programmable on invocation, and provided a token distribution automatization for 21 million Turkish Lira pegged tokens on Ethereum Network at the time.
- Created user-facing UI components to interact with backend implementations that I did, meaning owned a feature end-to-end and made it true. Used React on the frontend, and Node.js on the backend.

## **Freelance, Istanbul** – *Fullstack Engineer*

2008 – 2019

- Worked with countless languages and many customers. Customers consisted of big Turkish TV Channels and Municipalities as well as small organizations and businesses.

## EDUCATION

### **University of Pecs, Hungary** – *Physics Dropout*

September 2014 – April 2017, Pecs

Learned scientific methods for experimentation, mastered English and learned Math.

## PROJECTS

### **BonAir Shop Customer Counting** – *Python*

February 2019

R&D of counting people from CCTV live footage. Worked with **Python** and **OpenCV** with 2 other people. Used HOG, Haar Cascade, Mobilenet SSD to identify people and Kalman Filter, Particle Filter, Centroid Tracker, KCF to track identified people. Studied **Linear Algebra** to Gradient Descent, learned how to be updated with fresh knowledge from academia. Wrote top-notch Object-Oriented Python. Learned how to write idiomatic Python.

### **ScreenSlice** – *Rust*

May 2022 – Ongoing

Used Windows API and unsafe Rust. It's an ongoing project that I am going to finish soon. It simply aims to dissect the screen into 9-slices recursively with keyboard and touchpad and give a calculated but intuitive ability to use UI to blind people so they can be more productive and get hired more.

### **Top Bizde** – *Action Script 3*

2013

An Adobe Flash Action Script 3 Project to be used on the touch screen of a live TV Show to show the interaction of footballers with each other. This is the project where I worked with GSAP(TweenLite) to make animations which are liked

very much by the creative director of the TV Channel. You can see a glimpse of what it looks like [here](#). It allowed changing footballers with substitutes and creating a game plan with touch events on the TV screen that is presented to people who are watching the channel.

## Effective Data Reading – Rust

January 2022

Did R&D on how to inflate gunzip on-the-fly, studied compression theory and current deflate, zlib and gunzip implementations. Tried to parse Common Crawl data in the most efficient, multi-threaded way in Rust and it was my first Fork-join implementation, amazed by the power of multi-threaded programming with this project. Also have a plan to implement CUDA to the software so I can be amazed more.

## NetTV – C#

2012

A C# desktop application to watch Turkish TV Channels online. Downloaded by 10.000 people and was liked very much.

## SlickPoll – Node.js, Typescript, Vue.js

December 2018

A platform to create embeddable polls for Medium.com. Built on top of dockerized Express and Restify backends and Vue.js frontend.

## SocksPanel – React, Typescript, D3.js, SASS, Testing

May 2019

A React Typescript admin panel with complicated component structure, has a calendar component like Google Calendar's which I am very proud of. Used D3.js, SASS, Jest, invented my own testing utilities for jest and js-dom

## Emoji128 – Small Project for Fun, Javascript

June 2021

It's a project that encodes data to a set of 128 emojis from a lookup table. Was quite similar to base64 encoding and I learned the depths of UTF8 and Base64 Specs in this project. Was quite fun.

## INTERESTS & SKILLS

\*Post-quantum  
Cryptography

\*Quantum Computing

\*Reverse Engineering

\*Embedded Development

Computer Networking  
and TCP/IP

Computer Networking  
Advancements

Computer Languages

Psychology

Physics

Mathematics

Philosophy

Finance

Resilience

Software Design and  
Architecture

Software Engineering  
Principles

Data structures and  
Algorithms

\*OS Development

\*Probability Theory

\*Economics and Game  
Theory

*\*s mean active learning*