# Egemen Gulpinar

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23 April 1998 | TURKEY



## **SUMMARY**

2021 January

2020 June

(Remote)

I'm an AI Engineer, Backend Developer, and R&D Team Lead with hands-on experience in designing, managing, and maintaining AI projects. I've led multiple AI projects, built real-time detection systems and complex systems with multiple processes, and set up AI/ML workflows. In addition, I've built automation systems and backend services, I also have experience in creating desktop, cloud, and web apps. In all my work, I'm always looking for ways to include the latest advancements in AI. Beyond my technical roles, I'm an Indie Hacker who loves to think differently and find unique solutions. My belief is that continuous learning is key in the fast-changing world of AI, I like to combine what I've learnt with the ideas I've in my mind. My motto is always "be different".

EDUCATION IN	FORMATION	
2022 February 2021 September	Bradford University Department of Computer Science (Erasmus Exchange Student, GPA: 4.00) / Bradford/UNITED KINGDOM	
2021 May 2017 September	Mersin University Computer Engineering (English, GPA: 3.40, ex. +23 ECTS) / Mersin/TURKEY	
2017 May 2013 September	Hacı Sabancı High School / Mersin/TURKEY  Ludwig Uhland Schule, Wendlingen am Neckar / Stuttgart/GERMANY	
2007 May 2003 September		
WORK EXPERI	NCE	
(Ongoing) 2021 September Istanbul/TURKEY (Hybrid)	LIVAD Technologies, Full-Time AI Engineer, Backend Developer, R&D Crew Lead	
	Creating project structures, designs, plans & development. Building AI and Automated systems for company by mainly computer vision, extracting, synthesizing and mathematical analyzing large volumes of data, AR, neural language processing and deep learning developing areas, using most effective ways and state of art methods. Working with Cloud based systems and integration.	
	<ul> <li>LIVAD Studio Windows application Lead. Creating all structure and start-to-end development process.</li> <li>A Kubernetes microservice for object-specific animation recognition in videos via computer vision ways.</li> <li>Utilising data mining, machine learning, algorithmic and statistical tools for large volumes of data</li> <li>Custom deep learning models for detecting specific in-game moments.         (IAB 2023 In-Game Gold Award, Brandverse 2023 Silver Award)</li> <li>Unreal Engine 5 realtime meta human lip-sync &amp; backend communication system.</li> <li>Open Broadcast Studio(OBS) Snap AR WebSDK Kit development (livestream AR integration, React App).</li> <li>Kubernetes microservice that includes lightweight speech recognition for given video input.</li> <li>Real-Time Offline Speech Recognition (NLP) &amp; Toxic Word Classifying System.</li> <li>Creating complex system that includes multi-process algorithms, they connecting each other simultaneously. That allows to LIVAD applications can running on local machine &amp; cloud.</li> <li>Background Sync App start-to-end development, added functionallity and created desktop UI with Qt5</li> </ul>	
2021 September 2021 August Ankara/TURKEY (on-site)	The Scientific and Technological Research Council of Turkey (TUBITAK) Space Technologies Research Institute, <i>Artificial Intelligence Intern</i>	
	Researched Image Super-Resolution Using Deep Convolutional Networks and developed different methods and optimizations for SRCNN methodology.	
	<ul> <li>Sparse Coding Based Super Resolution methods using with Deep Neural Network</li> <li>Convolutional Neural Networks for Super Resolution</li> </ul>	
2021 August 2021 June Istanbul/TURKEY (on-site)	BAYKAR Technologies, Artificial Intelligence Intern	
	Researched GNSS Systems, developed and animated China's satellite "BeiDou" position calculation	
	<ul> <li>Satellite mapping, labelling and matching on World Map</li> <li>RINEX Data Converting, Parsing and Reading. Created special library for BeiDou RINEX data.</li> <li>Found a new relationship between BeiDou RINEX Data and BeiDou Satellites movements</li> </ul>	
2021 January	METU Teknokent SFM Software Company, Software Developer   Volunteer Intern	
2020 July (Remote)		

Asır Digital, HPE Course Member | Volunteer Intern

Hawlett Packard Enterprise system course member, learning HPE systems and cloud infrastructure

COMPUTER SKILLS			
<ul> <li>Programming Languages</li> </ul>	Python, MATLAB, SQL, JavaScript, C, C++, Assembly, Bash		
<ul> <li>Deep Learning, NLP &amp; Advanced Methods</li> </ul>	Keras, Tensorflow, PyTorch, ONNX, C++ accerelation, VOSK, Kaldi		
<ul> <li>Computer Vision and Image Processing</li> </ul>	OpenCV, Satellite Mapping, YOLO(v5/v8/NAS), Object Tracking, OCR		
<ul> <li>Data Science, Visualization &amp; Statistics</li> </ul>	SciPy, MatplotLib, scikit-learn, Seaborn, Pandas, Numpy, MATLAB		
<ul> <li>API, Web &amp; Data Mining</li> </ul>	FastAPI, Docker, Django, Django REST, Flask, Scrapy, Selenium		
<ul><li>Other Interests &amp; Usage</li></ul>	VB Script, BAT Script, Python C++ Wrapping, Generative Art, InnoSetup, Prompt Engineering, Ardunio, ffmpeg, Cron Jobs, Multiprocess Systems, Quantum Computation(Qiskit), Linux(bash), Adobe(AE,PR,PS), Google Data Studio, Qt Designer, Qt5, C#		
CI/CD & Cloud	Jenkins, GitHub Actions, Google Cloud, Oracle Cloud, AWS		
■ Database	MySQL, SQLite, MongoDB, Cloud Storage		

## RESEARCH AND INDIVIDUAL PROJECT EXPERIENCE

❖ Web-based SaaS Product Combining Law and GPT Capability

A web-based SaaS solution that combines law and GPT technologies and offers its users a virtual legal counselling and acceleration of business processes

- Bradford University Cyber Security Research Paper Project; "Ransomware Attacks"
  Gulpinar, Hakki Egemen. (2022). Ransomware Attacks: Challenges and Defence. DOI: 10.5281/zenodo.6651413
- ❖ AI Profile Picture Generator Web-based SaaS Product with Multiple Styling Options
- Social Media Auto Post & Content Creation
- Python Backend Development for Mobile App that Provide Ease in the Field of Beauty and Care
- Web-based SaaS Product that Synthesises Voice and Auto Dubs in Multi Languages with Same Voice
- Image Super-Resolution Using Deep Convolutional Networks Research (SRCNN)
  Deep convolutional neural network model takes the low-resolution image as the input and outputs the high-resolution one. In that project has performed different methods and optimizations for SRCNN methodology.
- GNSS Systems Research and Satellite Position Calculation
  GNSS Systems and China's Satellite System BeiDou research, position calculation and mapping with reading and processing ephemeris data. In this project found significant details for BeiDou Satellite System working principle.
- Personalized Web Site and Dashboard

A functional website where a company provides control panel and data entry, view and organize data in table. (used Django)

#### **FOREIGN LANGUAGE**

❖ English (Upper Intermediate – B2), German (Anfänger – A1)

#### **CERTIFICATE & SEMINARS INFORMATION**

- 2022 BTK Academy "Introduction to Deep Learning with Keras"
- 2021 BTK Academy "Python & Tensorflow for Data Science"
- 2021 QWorld "Quantum Computing & Programming using Bronze Qiskit"
- ❖ 2021 GYP Candidate Entrepreneur | Turkey T3 Entrepreneur Organization
- 2020 Boğaziçi University DataCamp 20' ML/Reinforcement Learning/Kaggle Workshops
- 2019 Boğaziçi University Seminar "Entrepreneurship and Leadership"

#### **FAVORITE REFERENCE BOOKS AND ACADEMIC RESEARCH PAPERS**

- [1] C. Dong, C. C. Loy, K. He ve X. Tang, «Image Super-Resolution Using Deep Convolutional Networks. »
- [2] Chollet, F. (2018). Deep Learning with Python. Shelter Island (New York, Estados Unidos): Manning, Cop.
- [3] Gonzalez, R.C. and Woods, R.E. (2018). Digital image processing. New York, Ny: Pearson.
- [4] Müller, A.C. and Guido, S. (2017). Introduction to machine learning with Python: a guide for data scientists. O'reilly
- [5] Andrew Ng Neural Networks and Deep Learning Course Summary Notes Made by Mahmoud Badry
- [6] Aurélien Géron (2019). Hands-on machine learning with Scikit-Learn and TensorFlow concepts, tools, and techniques to build intelligent systems. O'Reilly Media, Inc.