Mert Yaşin

Lead Software Engineer

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EXPERIENCE

Cypher Games
İstanbul, Turkey
Lead Backend Engineer
10/2024 – Present

- Architected and built the backend of Match Squad, a mobile match-3 game, from scratch using .NET, SignalR for real-time multiplayer & live chat, MongoDB, and Redis for horizontal scaling
- Developed LiveOps event infrastructure with automatic scheduling, matchmaking, and real-time leaderboards
- Implemented a LiveOps dashboard (React, TypeScript) for managing events, players, teams, and server configuration
- Built and maintained production infrastructure with Terraform-managed AWS deployments (ECS Fargate, ALB), custom distributed job scheduler, automated load testing with k6 using TypeScript code generation from SignalR hub, OpenTelemetry observability (Prometheus, Jaeger), and zero-downtime deployments

Kranz Wolfe Associates
Belgium, Malaysia, Turkey (Remote)
Software Consultant, Contract
08/2024 – 10/2024

- Modeled factory production pipelines for steel manufacturing using DELMIA Quintiq Scheduler, collaborating with business consultants to deliver scheduling plans and supply chain optimization recommendations

VenueX
İstanbul, Turkey (Remote)
Senior Software Engineer
11/2021 – 12/2023

- Designed and maintained ETL pipelines (using AWS Lambda, S3) to consume store, product, and stock data from retail merchants. Developed a data feed diff tool using hashing and reduced the feed ingestion workload by over 80%
- Implemented robust data validation steps for the pipelines that continuously push processed retail merchant data to third-party APIs (Google Business Profile, Google Content API) in order to guarantee accurate and up-to-date product and location information on map and location providers (Google Maps, Google Merchant Center, Google Shopping)
- Developed and maintained backend RESTful APIs (NestJS, TypeScript) to handle merchant data logic and aggregation, with custom validations for data consistency. Developed dashboards, report pages (ReactJS, TypeScript, MUI), and data integration channels for partner merchants. Implemented end-to-end tests for user scenarios using Cypress
- Maintained and troubleshooted the Terraform-deployed infrastructure stack (EC2, ECS) and MongoDB database layer. Set up custom alerts (SNS) and notifications (to Slack) for early detection of infrastructure and database anomalies
- Authored the successful proposal of a *TEYDEB 1501 Grant for Industrial R&D projects* from TÜBİTAK. This project focuses on using the state-of-the-art Computer Vision (CV) and Large Language Model (LLM) techniques to batch process merchant data and store location review data (from Google Maps) to generate insights for the merchants

Olympos
Washington, United States (Remote)
Senior Software Engineer, Part-Time
04/2022 – 06/2022

- Investigated methodologies from machine learning literature to improve Olympos' propriety AI-powered tech talent matching algorithms. Worked on talent profiling, company profiling, and clustering problems

Wayne State University
Michigan, United States
Instructor, Graduate Teaching Assistant
08/2018 – 05/2021

- Instructor for *Problem Solving and Programming Laboratory* (C++)
- Teaching Assistant for *Introduction to Deep Learning* (Tensorflow), *Data Mining: Algorithms and Applications* (Python, R), *Intelligent Systems: Algorithms and Tools* (R, Weka), *Python Programming* (Python), *Introduction to Programming and Computation for Engineers* (MATLAB)

appliedAI
İstanbul, Turkey
CTO
06/2017 – 01/2018

- Led the technical team of a newly founded startup at the accelerator Garanti BBVA Partners, coordinating core product development with the team, interns, and freelance developers
- Scaled the B2B data analytics and artificial intelligence solution platform appliedAI to 2700+ monthly active users
- Curated a niche database of 3000+ AI companies, detailing their application areas and customers via web crawling and organic user acquisition. Established a lead generation pipeline through PoC partnerships with potential vendors
- Migrated the front-end MVP from Angular to React
- Maintained the full stack of appliedAI.com using ReactJS, MobX, Django REST Framework, and PostgreSQL; achieved zero downtime deployments with Heroku
- Mentored junior developers in front-end development and web crawling
- Talked about *Quantifiable AI* at the AI With The Best online conference

ING Bank - OrangeLab

İstanbul, Turkey

Machine Learning Consultant

12/2016 – 01/2017

- Planned roadmaps for machine learning projects, collaborating with data warehouse and analytics teams to prepare training data and structure base models for preliminary predictions
  - Predictive maintenance of automated teller machines (ATMs)
  - Credit limit prediction of potential customers and credit limit management of current customers
  - Net promoter score (NPS) prediction of customers

Novafortis Software Consulting

İzmir, Turkey

Software Engineer, Freelance

2015 – 2021

- Developed an e-Invoice Adaptor middleware to help companies transition accounting systems for compliance with the Turkish Revenue Administration's e-Invoice mandate. Novafortis is used as a *private integrator* to issue e-Archive invoices and to prepare e-Ledgers as a part of the e-Transformation process
- Conducted surveys on evolving government regulations, designed projects, and implemented software solutions

KNS Information Technologies

İstanbul, Turkey

Android Developer, Freelance

03/2014 – 07/2017

- Developed 12+ Android (Java) applications to enhance shoppers' mall experiences, including CMS support for promoting mall events and campaigns, sending push notifications, and managing brand loyalty programs
- Implemented indoor location detection and navigation using Bluetooth Low Energy (BLE) beacons in shopping malls

Peak Games

İstanbul, Turkey

Game Developer, Intern

06/2015 – 09/2015

- Designed and implemented four 2D & 3D hypercasual games (Color Rush, Paper Dreams, Car Crossing, Tap to Aim) using open-source assets, and creating new models from scratch in Unity3D
- Built and monetized the gamification infrastructure for Peak Box with interstitial video ads
- Added localization support and multiple translations to Peak Box

Innova IT Solutions

İstanbul, Turkey

Software Engineer, Intern

06/2014 – 07/2014

- Interned at the Financial Transaction Applications department and developed a CRUD report portal integrated with Microsoft Reporting Services (SSRS) for an international bank using ASP.NET MVC 5
- Automated report generation for 30+ report types using Perl scripts and ASP.NET Razor (C# and HTML)

E D U C A T I O N

Wayne State University

Michigan, United States

PhD ABD, Computer Science

2018 – 2021

- Successfully passed Ph.D. Qualifying Exam – 2020
- Research Projects:
  - *Early seizure detection in neonatal brains with EEG data;* using structural & functional brain network models, and deep learning & wavelet-based methodologies to perform temporal & spectral analyses
  - *Disease subtyping using genomic and clinical data;* integrating datasets from multiple cohorts, and identifying cancer subtypes via bioinformatics, data mining, and machine learning

  Relevant Courses

MGG 7010: Molecular Biology and Genetics	PSY 5040: Cognitive Neuroscience
CSC 7991: Introduction to Deep Learning	CSC 6860: Digital Image Processing and Analysis
CSC 7810: Data Mining: Algorithms and Applications	CSC 5800: Intelligent Systems: Algorithms and Tools
CSC 7991: Advanced Cyber-Human Interactions	CSC 7991: Information Retrieval
CSC 8260: Seminar in Energy Efficient Mobile/Cloud Computing	CSC 5591: Engineering Innovation and Entrepreneurship
CSC 5430: Game Programming & Design	CSC 5591: Unix Security with Shell Programming

Boğaziçi University

İstanbul, Turkey

Master of Science, Computer Engineering – Incomplete

2016 – 2018

- Co-founded the reading group Deep Learning Boun
- Prepared and graded homework as a Student Assistant for CmpE 300: Analysis of Algorithms
- Attended the Convex Optimization reading group of the Perceptual Intelligence Laboratory
- Spoke at the Ask Me Anything #machinelearning event and the Learning to Learn panel

  Relevant Courses

CmpE 59M: Interaction Design	CmpE 59H: Bioinformatics
CmpE 537: Computer Vision	CmpE 557: Complex Systems
CmpE 547: Bayesian Statistics and Machine Learning	IE 501: Optimization Techniques

Czech Technical University
Vision and Sports Summer School (VS3)

Prague, Czech Republic
08/2016

- Attended a summer school focused on state-of-the-art Computer Vision applications in the industry and recent literature, with team-building activities such as ultimate frisbee, orienteering, climbing, archery, and unihockey

Boğaziçi University
Bachelor of Science, Computer Engineering

İstanbul, Turkey
2012 – 2016

- Honors: Dean's Honor List; GPA: 3.28 / 4.00
- Implemented recurrent neural networks (RNNs and LSTMs) in Python from scratch and generated new poems, plays in the style of William Shakespeare and Nazım Hikmet for my Bachelor Thesis
- Ranked 1st in the case study competition All-Rounder by designing a puzzle game – 2016
- Ranked 1st in Yıldız Technical University 5th Finance and Software Days Code Contest – 2014

    Relevant Courses
    - CmpE 544: Pattern Recognition
    - CmpE 540: Principles of Artificial Intelligence
    - CmpE 58Z: Introduction to Biometrics
    - CmpE 545: Artificial Neural Networks
    - CmpE 482: Numerical Linear Algebra and Its Applications
    - CmpE 489: Cognitive Science

Özel Ege Lisesi
High School

İzmir, Turkey
2008 – 2012

- Represented Slovenia in the SOCHUM Committee of Harvard National Model United Nations (HNMUN) – 2011
- Led the winning team at İzmir Gelişim College's Mathematics League – 2011 & 2012
- Won two medals at University of Waterloo's math contests – 2011 & 2012
- Participated in American Mathematics Competition and National Antalya Mathematics Olympics – 2010 & 2011

SKILLS

game-dev & mobile	• Unity3D; C# • Godot; GDScript • Android; Java • React Native
machine learning	• Deep Learning • Computer Vision • Natural Language Processing • Recurrent Neural Networks • Transfer Learning • Reinforcement Learning • Bioinformatics • Digital Signal Processing
data science	• Python; TensorFlow, Keras, PyTorch, NumPy, Pandas • MATLAB • R
front-end	• React.js • Angular • Next.js • MobX, Easy Peasy • MUI, Semantic UI, Tailwind, DaisyUI
back-end	• NestJS • Node.js • TypeScript • Python; Django, Flask • Java; Spring • C#, ASP.NET, SignalR • MongoDB, PostgreSQL, MySQL • Redis • BullMQ, RabbitMQ • Prometheus, Jaeger, New Relic
dev-ops	• AWS; EC2, ECS Fargate, ALB, S3, Lambda, DynamoDB • Terraform, CDKTF • Docker • Grafana k6
others	• Prolog • Perl • LaTeX • Arch Linux

EXTRACURRICULAR

- Ranked 1st at inzva's AI Projects #7 with the project Deep Learning for Procedural Pattern Generation – 01/2022
- Co-founded the volunteer alumni community, Boğaziçi University International Community (BOYUT) – 01/2021
- Running, cooking, cycling, swimming, playing guitar, playing video games, developing video games, *learning to learn*
- Languages: Turkish (Native), English (Fluent), Macedonian (Pre-Intermediate), Dutch (Beginner)