

CAGRI TEMEL

MACHINE LEARNING ENGINEER

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IEEE Senior Member Number: 101604066

PROFESSIONAL SUMMARY

Distinguished technology executive and innovation leader with extraordinary achievements in artificial intelligence, machine learning, and software quality engineering. Currently pioneering AI-driven real estate technology solutions. International patent holder with patents in both Turkey and the United States. NASA competition winner and distinguished leader in NASA Space Apps Challenge, serving as Local Lead (2 years) and Mentor. Proven track record of leading transformational projects, mentoring 500+ students across STEM disciplines, and driving technological innovation at national scale.

WORK EXPERIENCE

Machine Learning Engineer & CTO | Hezarfen LLC | Dover, DE

Dec 2020 – Present

Expert in AI-driven platform development, innovation, machine learning architecture, scalable infrastructure design, cross-functional team leadership, and strategic technology roadmap execution.

- International Patent Portfolio: Leading breakthrough innovations with patents filed in the United States for novel automation systems revolutionizing real estate and technology domains
- Technical Vision: Leading end-to-end technical strategy for AI-powered real estate platform serving thousands of users, establishing new industry standards
- Machine Learning Excellence: Architecting advanced ML algorithms for property valuation, market prediction, and automated decision-making systems
- Infrastructure Mastery: Designing scalable cloud infrastructure supporting rapid user growth and complex AI workloads
- Team Leadership: Managing cross-functional engineering teams across multiple time zones, driving product delivery alignment with business objectives
- Innovation Pipeline: Continuously advancing AI capabilities, data infrastructure, and financial automation to improve housing accessibility nationwide

Maker Engineer | Ozyegin University| Istanbul, Turkey

Jan 2019 – Sep 2020

Led university STEM and maker-space initiatives; built mentorship pipelines and hands-on curricula that boosted engagement and technical skills (100+ students). Organized community showcase events that inspired hundreds of high school students to pursue engineering careers.

- Designed maker space projects increasing student participation by 30%
- Integrated hands-on projects into curriculum improving course performance
- Organized showcase events inspiring hundreds of high school students
- Created mentorship program pairing experienced students with newcomers
- Developed supportive learning environment boosting technical confidence

Quality Assurance Engineer | Istanbul Aydin University| Istanbul, TR

Jul 2018 – Jan 2019

Architected QA frameworks for web-based educational platforms with video content and student tracking systems. Led comprehensive testing ensuring seamless user experience and robust performance.

- Developed automated testing for online platforms with video streaming capabilities
- Implemented QA processes for student progress monitoring systems
- Built TDD/BDD frameworks using Java, TestNG, and Selenium
- Performed database validation for student enrollment and progress data
- Led agile QA initiatives maintaining quality while enabling rapid deployment

EDUCATION & CERTIFICATIONS

MASTER'S DEGREE | Computer Science | Grand Canyon University

Sep 2023 – April 2025

Academic Excellence: GPA 3.89/4.0, Alpha Chi Honor Society (Top 10%)

Specialization: Advanced Machine Learning and Artificial Intelligence

BACHELOR'S DEGREE | Electrical and Electronic Engineer| Istanbul Aydin University

Sep 2013 – Jun 2018

Distinguished Graduate: Comprehensive foundation in engineering principles

SUMMER CAMP EDUCATION | International Space University
Elite Selection: Participated in prestigious 2-month intensive program
Global Collaboration: Worked with international experts on cutting-edge space technology projects

Jul 2017

CERTIFICATION | **Machine Learning Certification – MIT** | **Machine Learning Professional - IBM** | **Generative AI with Large Language Models – AWS DeepLearningAI** | **Introduction to Deep Learning & Neural Networks with Keras – IBM** | **Preview Choosing a Cloud Platform for Developers: AWS** |

TECHNICAL SKILLS

Artificial Intelligence & Machine Learning

- Advanced Machine Learning Algorithms, Predictive Modeling & Analytics
- Deep Learning & Neural Networks (Computer Vision, NLP, Generative AI, LLMs)
- AI System Architecture & Design, Explainable AI
- Robotics AI & Chain-of-Thought Prompting

Software Engineering & Testing

- Full-Stack Development (Java, Python, C/C++)
- Test Automation Frameworks (Selenium, TestNG, JUnit, Rest Assured)
- TDD/BDD Methodologies
- CI/CD Pipelines (Jenkins, GitHub Actions)
- Performance & Load Testing

Cloud & Infrastructure

- AWS Cloud Services (EC2, Lambda, S3, RDS)
- Scalable AI Infrastructure & MLOps (Docker, Kubernetes, MLflow)
- Database Design & Optimization (SQL & NoSQL)
- API Development & Integration

Leadership & Innovation

- Cross-Functional Team Leadership (Global & Remote Teams)
- Strategic Technology Planning & Startup Growth
- STEM Education Program Development (500+ students mentored)
- Public Speaking & Conference Presentations (NASA Space Apps, Maker Faire, TÜBİTAK Robotics)

SPEAKERS / SEMINARS AUTHORED

- *Turkey Innovation Week – Istanbul Congress Center (2017)*: Speaker, “How to Live Mars” - Audience of 310,000+, mentoring young innovators during the event.
- *Gaziantep University (2018)*: Speaker, “How to Become a Project Leader?” - Guided students on leadership and entrepreneurship in technology projects.
- *Pertevniyal HS & Kemal Hasoğlu HS (2019)*: Speaker, “Space Science, Motivation, and Entrepreneurship” - Mentored high school students in STEM fields.
- *Turkey Innovation Week – Istanbul Congress Center (2019)*
Speaker & Moderator – Discussed Deep Space and Science with Dr. Umut Yıldız (NASA JPL Astrophysicist). Audience of 510,000+ participants (one of Turkey’s largest innovation events).
Panel Moderator – “Innovations in Sustainable Energy” with panelists Burak Erkan, Askin Haydaroglu, and Ilayda Demircioglu.
- *IDEJA Hackathon (2019)*: Mentor, coached teams on robotics and AI solutions.
- *Bilim Virusu Program (2019)*: Mentor & Speaker, selected 25 students trained on Space Science.
- *Ambition In Motion Alumni Mentor Program (2025)*: Mentor, guiding professionals on career development.
- **Louisville AI Week 2026 - Louisville, Kentucky, USA**
Invited Speaker - *AI That Matters: Trust Over Power*

- **IEEE New Era AI World Leaders Summit — Seattle, WA, USA (2025)**
Invited Speaker — *Safe and Interpretable Chain-of-Thought Reasoning for Autonomous Robots*
- **IEEE SoutheastCon 2026**
Author & Presenter — *Towards Trustworthy Autonomous Robots: An Explainable AI-Based Decision Framework*

MEMBERS

- **IEEE (Institute of Electrical and Electronics Engineers)** - Active Professional Senior Member
- **AAAI (Association for the Advancement of Artificial Intelligence)** - Active Professional Member
- **Google Developers Group** - Active Member, Seattle and Bellevue Chapters
- **AICamp** – Active Member, Bellevue Chapter
- **Alpha Chi Honor Society** - Continuing Member, Academic Excellence Recognition
- **International Space University** - Alumni Network Member
- **Turkish Exporters Assembly** - Technology Education Contributor

JUDGES & INDUSTRY MENTOR

Various Institutions (University of Pennsylvania, Opportunity Hack, IKU ANTS Tekmer, SF Tech Week)

Served as judge and industry mentor in multiple international AI-focused hackathons and startup programs

Evaluated projects across technical depth, innovation, scalability, and real-world impact

Provided mentorship on AI systems, ML architectures, product strategy, and implementation challenges

Contributed to fair and structured evaluation processes, including multi-round judging and finalist selection

Supported over 200+ participants and 100+ teams in high-intensity innovation environments

Selected as jury member for ANTSPARK Pre-Incubation Program to assess high-potential startups and guide venture development

Delivered expert mentorship in entrepreneurship, market validation, and investment readiness within incubation programs

PATENTS & PUBLICATIONS

United States Patent and Trademark Office (USPTO)

U.S. Provisional Patent Application No. 63/819,250, filed June 25, 2025.

Role: *Co-Inventor*.

United States Patent and Trademark Office (USPTO)

U.S. Provisional Patent Application No. 63/975,114 filed February 3, 2026

Role: Inventor

Turkey Patent No. TR 2019 22779 B granted November 21, 2022 (Priority date: December 19, 2018).

Role: *Co-Inventor* (International Patent).

Temel, C. (2025). *Chain-of-Thought Prompting for Autonomous Robots in Urban Environments*.

Invited Speaker, **IEEE New Era AI World Leaders Summit**, Seattle, WA, USA.

Temel, C., et al. (2026).

Towards Trustworthy Autonomous Robots: An Explainable AI-Based Decision Framework.

IEEE SoutheastCon 2026.

Temel, C., et al. (2026).

CT-SAFR: Safe and Interpretable Chain-of-Thought Reasoning for Autonomous Robots.

IEEE Conference on Artificial Intelligence (CAI 2026).

Session Chair

IEEE SoutheastCon 2026

Session: *AI and Predictive Modeling*

Role: Moderated peer-reviewed research presentations and facilitated technical discussion among conference participants.

ADVISORY & MENTORSHIP ROLES

- **Ambition In Motion – Alumni Mentor (2025–Present)**
Selected as an alumni mentor to support professional development, career growth, and leadership skills of mentees through structured mentorship sessions.
- **Beykent University, Faculty of Economics – Advisory Board Member (External Stakeholder), 2025–Present**
Selected as an external stakeholder to the Department Advisory Board, contributing expertise in AI, Machine Learning, and technology-driven innovation to align academic programs with industry needs.

REWARDS & HONORS

- **NASA International Space Apps Challenge — Local Lead, Organizer & Mentor (2020, 2021)**
Led local editions across two cycles: coordinated event operations, mentor/judge rosters, outreach, team support, and reporting to the program.
- As part of the InovaTIM Artificial Intelligence, Innovation, and Entrepreneurship Trainings in High Schools project, I personally designed and led the Robotics and AI curriculum. This initiative reached over 500 high school students, providing hands-on AI and robotics education and mentorship. The program was recognized as the **National Winner** by KOSGEB and the Turkish Exporters Assembly (TIM) and represented Turkey in the **European Entrepreneurship Promotion Awards (EEPA 2020)**.
- **Maker Faire San Francisco - Best Space Project (2019)**
Awarded for an exhibited space/robotics project recognized by event organizers and audience engagement.
- **TUBITAK Robotics Competition - referee (Turkey - 2017)**
Returned as a referee, applying standardized scoring criteria and feedback to finalist teams.
- **TUBITAK Robotics Competition - referee (Turkey - 2016)**
Evaluated autonomous robotics teams on design quality, control systems, innovation, and safety compliance.
- **NASA/AAS CanSat Competition - Second Place (Texas, USA - 2015)**
Recognized for systems engineering and mission execution in an international rocketry/payload design competition.