

Eray Alp

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Education

Istanbul Bilgi University

2021 – 2026

Bachelor of Science in Computer Engineering; GPA: 3.35/4.0

- **Coursework:** Computer Architecture, Operating Systems, Deep Learning, Natural Language Processing

Experience

DevOps Engineer Intern

Istanbul, Turkey

P.I. Works

Jul 2025 – Present

- Assisted in building and maintaining CI/CD pipelines using GitLab, Bash, and Python to automate deployments, testing, and code quality checks.
- Supported deployments in a bare-metal Kubernetes cluster, contributing to the management of key DevOps services including PostgreSQL, Prometheus, and Grafana.
- Helped monitor infrastructure health using Grafana dashboards, collected performance metrics, and worked with centralized logging via the ELK Stack.
- Contributed to internal AI agent development using LLMOps workflows, including RAG architecture, prompt engineering, and vector search.
- Gained hands-on experience managing Linux servers and participating in automation efforts across development and deployment workflows.

AI Research Assistant

Istanbul, Turkey

COSMOS AI Research Group, Yıldız Technical University

Jan 2025 – Jun 2025

- Selected for the TÜBİTAK 2247-C STAR Scholarship Program.
- Conducted research under Prof. Mehmet Fatih Amasyalı on the project “New Approaches for Text Representation and Text Generation with Neural Language Models.”
- Developed and fine-tuned Turkish Large Language Models (LLMs) for improved reasoning capabilities, including curating and organizing datasets tailored to research objectives.
- Applied Reinforcement Learning (RL) techniques to enhance mathematical reasoning, logical inference, and structured decision-making in NLP tasks.
- Contributed to academic publications and collaborative research outputs.

Machine Learning Engineer Intern

Istanbul, Turkey

Insider

Aug 2024 – Dec 2024

- Collaborated with the search team on a product to enhance semantic search features and optimize a neural search pipeline, personalizing results for e-commerce partners and improving APIs.
- Supported NLP-driven search features by fine-tuning language models for relevance, implementing spell correction, suggestion algorithms, and ranking techniques to boost query understanding and intent detection.
- Developed and deployed REST services using Python FastAPI, Elasticsearch, and Java Spring Boot to enable real-time search and improve user experience.
- Contributed to embedding extraction and indexing, reducing query time by 5-10%. Learned about the semantic search pipeline using AWS Lambda, Redis, Amazon ECS, Amazon S3, and Kinesis Firehose.
- Enhanced scalable ML workflows and model deployment using Apache Airflow and Amazon SageMaker, while streamlining microservices architecture with AWS, Docker, and Kubernetes.

Big Data Research Assistant

Istanbul, Turkey

Istanbul Bilgi University

Mar 2024 – May 2024

- Contributed to a web scraping project at the Center for Financial Studies (CEFIS), focusing on gathering and analyzing inflation data to support an economic research.
- Conducted in-depth analysis of large datasets, applying advanced data mining techniques to develop predictive

models that accurately predict inflation trends using time series data, leading to valuable insights for research.

- Automated the web scraping process using Scrapy, Playwright, Docker and Cron, significantly enhancing data collection efficiency by addressing API throttling issues and ensuring reliable, uninterrupted data flow.

Software Developer Intern

Istanbul, Turkey

Insider

Jul 2023 – Sep 2023

- Developed full-stack features for e-commerce personalization tools using Vue.js and Node.js, integrating RESTful APIs to deliver dynamic campaign experiences.
- Engineered backend services for user behavior tracking and real-time customer segmentation, contributing to scalable recommendation system infrastructure.
- Collaborated in an Agile team to refactor legacy codebases, implement CI/CD pipelines, and ensure robust frontend performance across high-traffic client platforms.

Skills Summary

Focus Areas: Machine Learning, Deep Learning, Software Engineering, System Design, Infrastructure, NLP, LLMs, Agentic AI

Programming Languages: Python, JavaScript/TypeScript, Java

Frameworks/Libraries: FastAPI, PyTorch, HuggingFace, LangChain, Node.js, Express, Vue, Spring Boot, Scikit-learn, Pandas, NumPy, Scrapy, Playwright

Tools & Technologies: Amazon Web Services (AWS), Docker, Kubernetes, Elasticsearch, Redis, Airflow, SQL, PostgreSQL, MongoDB, MySQL, Git, Linux, Postman

Volunteer Experience

Founding Board Member

Istanbul, Turkey

Bilgi Software Community

Dec 2023 – Dec 2024

- Started a student community at Istanbul Bilgi University to create an environment where students interested in computer science can network with each other, work on group projects, and share their knowledge and opinions on different subjects.

Software Development Team Member

Istanbul, Turkey

Bilgi Blockchain

Feb 2024 – Present

- Supporting the team on developing blockchain projects, being active with the ideas and events.
- In order to contribute to the Blockchain community, Organized hackathons and a YouTube series called "Zincirsiz" with the team.

Software & Communication Team Member

Istanbul, Turkey

Bilgi Robotics

Oct 2022 – Apr 2023

- Participated in the TUBITAK Teknofest Hyperloop Development Competition and played an active role in the work of the software team and the preparation of the project report.