



AHMET BURAK ALBAYRAK

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SUMMARY

I am a fourth-year Software Engineering student at Çankaya University with a strong interest in technology and problem-solving. Throughout my education, I have taken part in various projects that helped me improve both my technical and teamwork skills. I am a responsible and motivated individual who enjoys learning and adapting to new challenges. I am currently seeking a professional opportunity where I can apply my skills to real-world challenges and contribute to impactful software solutions.

WORK EXPERIENCE

Undergraduate Teaching Assistant, Çankaya University Feb 2025 - Present

- Assisted faculty in teaching C and C++ programming courses at Çankaya University, with a focus on practical lab sessions and student guidance.
- Provided support in advanced C topics such as file handling, pointers, and data structures.
- Guided students through Object-Oriented Programming (OOP) concepts and data structures in C++.

Software Engineer Intern, BOTAŞ Jul 2025 - Jul 2025

- Led a 15-member intern team by organizing sub-groups, distributing tasks, creating timelines, providing regular progress reports, and mentoring peers throughout the project.
- Developed the iOS application using SwiftUI and contributed to backend development with Flask, enabling user authentication, document upload, and AI-powered Q&A functionality.

Junior Backend Developer, mfatech Jan 2025 - Jun 2025

- Contributed to the backend development of the "İstasyon" mobile application using Python and Flask.
- Integrated cloud-based services via AWS to support scalable and reliable backend infrastructure.
- Collaborated within an Agile development team, participating in sprint planning, daily stand-ups, and code reviews.

Artificial Intelligence Intern, Büyük Savunma ve Yazılım Teknolojileri Jul 2024 - Aug 2024

- Completed an AI internship focused on machine learning with TensorFlow, contributing to data-driven projects and environmental analysis using the CarbonMapper dataset.
- Supported model training and validation through critical data labeling and preprocessing tasks.
- CarbonMapper: <https://huggingface.co/datasets/bsytechs/CarbonMapper>

Backend Developer Intern, Tesodev Jul 2023 - Sep 2023

- Completed a backend development internship using C# and .NET, working with RESTful APIs, middleware architecture, and NoSQL databases like MongoDB.
- Applied backend concepts such as validation modules and the software development lifecycle through hands-on project experience.

EDUCATION

Bachelor of Science in Software Engineering, Çankaya University 2020 - Present

- Built a strong foundation in software engineering principles, with a focus on database systems, backend development, and software quality.
- Participated in practical projects involving Flask, PostgreSQL, and React, gaining hands-on experience in full-stack development.
- Supported academic research and peer learning as an Undergraduate Teaching Assistant in C/C++ programming courses.
- GPA: 3.15 / 4.00

PROJECTS

IT-ISQS Community Website - Full-Stack Developer & DevOps

Feb 2025 - May 2025

Developed a web-based learning platform to promote awareness of international software quality standards (ISO/IEC 12207, 29110).

- Built the full-stack application using React.js (frontend) and Spring Boot (backend)
- Designed and integrated a relational database (MySQL) with SSL security
- Deployed services via Firebase (frontend) and Koyeb (backend), integrated AWS S3 for file storage
- Managed testing, API validation, and end-to-end deployment independently
- Actively participated in Agile workflows and remote collaboration using GitHub Projects

Key Skills: Java, JavaScript, React.js, Spring Boot, SQL, Git, RESTful APIs, Agile, AWS S3

Project Website: <https://it-isqs-cankaya.web.app>

Project Github: <https://github.com/burak-albayrak/IT-ISQS-Community-Website>

Scientific Metadata Extractor - Full-Stack Developer & DevOps

May 2025 - May 2025

Developed a web application that extracts structured metadata from scientific PDFs using Google's Gemini AI model.

- Built with Flask (Python) for backend and React.js + Tailwind CSS for frontend
- Integrated Gemini API for natural language metadata extraction
- Implemented PDF parsing and batch file processing with export to Excel
- Designed a modern drag-and-drop UI for academic and research use
- Deployed frontend on Firebase Hosting

Key Skills: React.js, Python, Flask, NLP, Prompt Engineering, Tailwind CSS, Git

Project Website: <https://scientific-metadata-extractor.web.app>

Project Github: <https://github.com/burak-albayrak/scientific-metadata-extractor>

Unit Converter - Product Owner & iOS Developer

Jul 2024 - Oct 2024

Developed a unit conversion app deployed on all major Apple platforms, offering a consistent and localized user experience.

- Built using SwiftUI with full support for iOS, iPadOS, watchOS, macOS, and visionOS
- Implemented MVVM architecture and integrated SwiftData for persistent conversion history
- Designed an intuitive and accessible interface with categorized converters and real-time results
- Supported custom units and multilingual localization (English & Turkish)
- Published on the App Store across five Apple platforms with 4000+ downloads

Key Skills: Swift, SwiftUI, SwiftData, MVVM, iOS/macOS Development, UX Design, Localization

Project Github: <https://github.com/burak-albayrak/UnitConverter>

App Store (iOS & watchOS): <https://apps.apple.com/tr/app/unit-converter-scientific/id6692634387>

App Store (iPadOS & visionOS): <https://apps.apple.com/tr/app/unit-converter-scientific/id6737483901>

App Store (macOS): <https://apps.apple.com/tr/app/unit-converter-for-desktop/id6737628683?mt=12>

CarbonMapper - AI Research Contributor

Jul 2024 - Aug 2024

Contributed to the development of CarbonMapper, a machine learning dataset for detecting carbon emissions from high-resolution satellite imagery.

- Worked on data preprocessing, analysis, and model training to identify emission sources
- Applied AI techniques to quantify carbon output for environmental monitoring
- Project is publicly available on Hugging Face to support open research collaboration
- Aimed to advance carbon neutrality efforts through actionable insights

Key Skills: Python, TensorFlow, Machine Learning, Data Labeling, Data Preprocessing

Hugging Face: <https://huggingface.co/datasets/bsytechs/CarbonMapper>