

A. Anil Sinaci

anil@sinaci.com

Software Engineer / Computer Scientist

<https://sinaci.com>

EXPERIENCE

Principal Solutions Architect

2016 — Present

SRDC Software Research & Development and Consultancy Corp.

Ankara, Turkey

- Manager of multiple teams to build the scalable and distributed web services and connected applications (Web & Android & iOS) of the Turkish State Meteorological Service. It is one of the most frequently visited websites in Turkey, having **~100 million unique visitors** yearly (2022) and mobile apps are used by over **4 million unique users**, with (almost) **no downtime**. We designed a polyglot persistence mechanism where we used relational (SQL) and document (NoSQL) databases together. [↗](#)
- Technical coordinator of the FAIR4Health project. Led a work package by **managing 17 different organizations across Europe** working on health data interoperability and privacy-preserving federated machine learning. Led the design and development of the architecture to make health data **FAIR** and published it as a scientific paper [↗](#). [↗](#)
- Work package leader of the AICCELERATE project. **Led 15 different organizations across Europe** working on application of AI solutions in real-world healthcare settings. We built a **high-performance health data preparation pipeline for AI** using Apache Spark, Apache Kafka and Akka through a reactive design. [↗](#)
- Principal solution architect of mantIQ Business Intelligence Platform. Managed multiple teams of software engineers, UI/UX experts to provide high-performing and personalized analytics visualizations to decision makers of healthcare organizations. Provided 80% faster queries for key performance indicators, 30% more efficient allocation of physical rehabilitation rooms. [↗](#)
- Lead architect and developer of onFHIR Repository; a standards-based, secure and scalable health data repository, implementing the HL7 FHIR standard, that handles **100 millions of daily records from 25 million patients** in Turkey. [↗](#)

Instructor

2016 — 2020

Department of Computer Engineering, Middle East Technical University

Ankara, Turkey

- A part-time job alongside my professional career. I worked as a course instructor offering C programming courses. Lectured, prepared exams and graded to **~200** freshman and sophomores in each semester. [↗](#)

Senior Software Engineer

2011 — 2016

SRDC Software Research & Development and Consultancy Corp.

Ankara, Turkey

- Lead architect and developer of SemanticMDR, a standards-based metadata management system on a **novel data interoperability framework**; side-product of my PhD study. [↗](#)
- Senior developer of the semantic content management modules of the IKS project with 13 partners across Europe. [↗](#) Apache Stanbol was born where I was a committer and member of the project management board. [↗](#)
- Software development manager of SALUS project where I coordinated the development of **postmarket drug safety and surveillance systems from electronic health records**. [↗](#)

Teaching/Research Assistant

2009 — 2011

Department of Computer Engineering, Middle East Technical University

Ankara, Turkey

- Prepared and graded several programming assignments of hundreds of students for undergrad courses like data structures, file structures and database management systems. [↗](#) [↗](#)
- Technical and academic **consultant to 2 different companies** to support their product development and R&D activities. [↗](#)

Software Engineer

2007 — 2009

Software Research Development Center, Middle East Technical University

Ankara, Turkey

- Full-stack developer of the TestBATN system which provided a self conformance testing service for interoperability standards. I developed several test cases so that nearly **200 software vendors** tested their products to get integrated to the national health information system of Turkey. [↗](#)

EDUCATION

PhD. in Computer Engineering, *Middle East Technical University, Ankara, Turkey*

2009 — 2014

- I designed and implemented a novel interoperability architecture based on Common Data Elements, Semantic Web technologies and Linked Data principles. I showed its real world application to solve the **interoperability challenge between clinical research and healthcare domains** [↗](#).

MSc. in Computer Engineering, *Middle East Technical University, Ankara, Turkey*

2007 — 2009

- I built a testing environment so that a client software can be tested in terms of conformance and interoperability with respect to the standards used in various layers of web service communication.

BSc. in Computer Engineering, *Middle East Technical University, Ankara, Turkey*

2003 — 2007

- I got accepted for one of the best CS departments in Turkey with a rank of **78th among 1.5 million candidates** in the national exams. I worked as a part-time software developer in my senior year.