



BAHTİYAR ERDEN

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Brief Summary

I am a software developer with a master's degree in computer engineering. I enjoy developing new software architectures and finding vulnerabilities in existing ones. It can be said that I hate code snippets that cannot be tested. So I think test-driven software development process is the main line of software development. Distributed architectures, scalable systems, microservice solutions, challenging domain issues, that's where i want to work!

Experience

Fullstack Team Leader / **May 2019 - Current**

Doggo İnternet Hizmetleri Pazarlama | Location: Remote

Summary

DogGO (<http://doggoapp.com>) is a mobile application that brings together dog walkers and dog owners, and provides safe walking and home care services for dogs. In DogGO, I lead a team responsible for the development of new features and maintenance of existing services. This team is responsible for the Scala microservices backend and mobile app development.

Key Technologies & Principles

- Scala
- React
- Cross-platform mobile application development with React-native
- Akka actors
- Kafka
- NoSQL
- CI/CD both mobile and backend

Backend Team Leader / **April 2018 - May 2019**

Venndom Consulting | Location: Izmir

Summary

I created a software team that I took part in all the recruitment processes for a newly established agency. Together with this software team, we designed and developed a microservice architecture for a start-up called DogGO. We took advantage of Lightbend's reactive stack while developing the architecture. At the end of the project, we implemented a highly scalable, event-based architecture where we manage containers with kubernetes.

Key Technologies & Principles

- Scala
- Lagom microservice framework (Play, CQRS, Event sourcing, Kafka etc.)
- Akka (actor, stream, http)
- NoSQL (Cassandra, Redis etc.)
- Domain-Driven Design
- Docker
- Kubernetes
- AWS and Google Cloud
- Distributed Systems
- CI/CD

Lead Developer & Software Consultant / January 2017 - January 2018

CMA Consultancy and Information Technologies | Location: Izmir

Summary

I took part in a multidisciplinary project. In line with the request of the biotechnology company, I developed an application using image processing technologies for cell counting, detection of living cells, calculation of curvilinear and linear velocities of cells by converting the phone into a microscope.

Key Technologies & Principles

- Java 8 / 9
- Mobile application development with Android and Swift
- Image processing with ImageJ

Big Data Engineer & Researcher / January 2015 - January 2018

CMA Consultancy and Information Technologies | Location: Izmir

Summary

My main responsibility was to design and develop the architecture of the government-supported R&D project. Ontology-based big data analysis was performed by collecting e-commerce data and comments on products from the web with the developed scalable architecture and transforming them into semantic web objects. The output of the project is the productization of the application in the cloud environment as SaaS. A wide variety of big data reports and other services are delivered through a multi-tenant architecture.

Key Technologies & Principles

- Java 8 / 9
- Angular.js
- Amazon Web Services (EMR, S3, etc.)
- NoSQL (MongoDB, DynamoDB, Neo4j)
- Hadoop
- MapReduce
- Sentiment Analysis
- Visualization of Big Data
- Indexing with Apache Solr
- Cloud Computing

Software Developer & Researcher / **August 2013 - January 2015**

Galaksiya Bilişim Teknolojileri ve Danışmanlık | Location: Izmir

Summary

The main output I put forward in this workplace was to design and develop a distributed and asynchronous agent like communication architecture. Later, the infrastructure we developed became the main ship of the company and integrated into all its products. My area of specialization was scalability and distributed working. For this, I have done research and development on multi-threading and agent-based communication.

Key Technologies & Principles

- Java EE
- Angular.js
- Reporting with D3.js
- Developing scalable, distributed asynchronous communication architecture like Akka Actors
- Role-based Agent Communication
- Recommendation Systems
- Web crawling and semantic tagging with the developed architecture (<http://followl.io>)
- Linked open data
- Semantic web technologies

Intern Developer & Researcher / **June 2012 - July 2013**

Seagent Research Laboratory | Part-time | Location: Izmir

Summary

I came across the practical equivalents of the software development principles that I learned theoretically in certain periods of the university. The most important output I produced during my time at this workplace was the publication of university data in a linked open data format. This output is important in terms of being the first example study done in Turkey.

Key Technologies & Principles

- Java EE
- Linked Data and Semantic Web Technologies (e.g.: RDF, RDFS, OWL, SPARQL, R2RML etc.)
- Semantic Web Services
- Triplestore (e.g.: Virtuoso, 4Store etc.)
- Test-driven Development (I gained this practice that I continued throughout my software development life here)
- Agile Software Development (We applied both extreme programming and scrum)

Freelance Projects

Jukeboxy

Cross-platform Mobile Application Developer | Freelancer | Location: US-Remote



Jukeboxy Music is a state-of-the-art music streaming service for businesses that plays music for their customers with in-store audio message capability. I support future development and problem solving steps for the mobile application in this

project. (See: <https://www.jukeboxy.com>).

HızlaKapında

Cross-platform Mobile Application Developer | Freelancer | Location: TR-Remote



HızlaKapında is a grocery shopping application. The products added to the cart through the application are delivered to the users' doorsteps via moto couriers.

Spermcell

Fullstack Developer & Consultant | Freelancer | Location: TR-Remote



Spermcell is a mobile application that analyses the sperm count, motility, velocity etc. values with using image processing and CASA (computer assisted sperm analysing) algorithms (See: <http://www.spermcell.net>).

Government Supported Projects

Development of Personalized Cloud-Based Big Data Management Platform

in CMA Consultancy and Information Technologies

Project that aims to provide data to the social media agencies, firms and end users in an analyzed, categorized and meaningful form which is scattered on the Internet. It offers semantic solutions for storing, processing and reporting large-scale data.

Web Graph Builder

in Galaksiya Bilişim Teknolojileri ve Danışmanlık

Intending things with this project is detecting events about real world concepts such as people, companies, products and places from thousands of web pages and collecting data from a wide spectrum of web sources from social media to newspapers and builds a meaningful connected web graph. It perceives real world concepts among bulk texts (by the semantic web technologies) in web contents and creates queryable knowledge. By the way we can develop comprehensive reports customized to our business using connected web graph. These reports can give us insights about web trends or our customers, users and community (See: <http://followl.io/>).

Ege University Linked Open Data Portal

in Seagent Research Laboratory

Ege University provides open access to data which is needed by students, members of university, citizens of Izmir, and everyone else. By this way, Ege university which has adopted the principle of being transparent, has taken an important step. Ege University open data is published using linked data technologies which provide a basis to semantic web. This portal aims to introduce the linked open data of Ege University. The data introduced in this portal, is presented directly from database (in an up to date manner) in the form of RDF. Each opened data set can be accessed via a SPARQL endpoint (See: <http://linkeduniversities.org/lu/index.php/datasets-and-endpoints/index.html> and <http://data.ege.edu.tr>).

Education

PhD., Computer Engineering (2018- Suspended)

Ege University / GPA - ?

MSc., Computer Engineering (2013- 2018)

Ege University / GPA - 3.16/4.00

Thesis title: Development of Common Query Operating Layer for NoSQL Databases

BSc., Computer Engineering (2009- 2013)

Ege University / GPA - 3.2/4.00

Thesis title: Semantic Web at the University: Ege University Linked Open Data Portal

Publications

Publishing and Linking University Data Considering the Dynamism of Datasources

9th Int. Conference on Semantic Systems I-SEMANTICS/I-CHALLENGE, Graz, Austria (September 2013)

Bağlı Veri Teknolojileri Kullanarak Üniversite Verisinin Bütünleştirilmesi ve Yayınlanması

UYMS'13 7. Turkish National Software Engineering Symposium (September 2013)

Skills & Expertise

- **Programming Languages:** Java 7-8-9, Scala, Python, Swift, Android
- **Scripting Languages:** Unix Shell, Windows Batch, JavaScript
- **Querying Languages:** SQL, SPARQL, Gremlin, Cyper, CQL
- **Databases:** MySQL, NoSQL (Cassandra, MongoDB, DynamoDB, Redis, Neo4j, JanusGraph etc.)
- **Front-end:** AngularJS, ReactJS, HTML5, CSS3, d3.js, Ionic, React-native
- **Servlet Containers:** Tomcat, JBoss, Wildfly, Glassfish, nginx
- **DevOps:** Kubernetes, Docker
- **Version Control & Source Code Management Software:** Git, SVN
- **Continuous Integration Tools:** Hudson, Jenkins, GitLab CI
- **Operating Systems:** MacOS, Linux, Windows
- **Research Areas:** Big Data, Multi-Store and Polystore Systems, Query Management
- **Big Data Technologies:** Apache Hadoop, Apache Spark, Apache Kafka, Apache Hive, Apache Pig, Apache Storm, Apache Lucene, Apache Solr, MapReduce
- **Semantic Web & Linked Data Technologies:** SDB, TDB, Virtuoso, 4Store, Apache Jena, Ontologies, R2RML, RML, Joseki, Fuseki
- **Proficiency:** Big Data, Linked Data, Semantic Web, Distributed Computing, Actor Model, Test-Driven Development
- **Other Skills:** Akka, Jsoup, AWS (Using and Management of Amazon Web Services), Sentiment Analysis, Asynchronous Servlets (Advanced JavaEE knowledge), Non-Blocking IO, Parallel Programming, Event Driven Programming, Object Oriented Programming and Design, Agile Methodologies (Worked with Extreme programming and SCRUM)

Languages

Turkish (Native or bilingual proficiency)

English (Professional working proficiency)

General Information

Marital Status: Single

Military Service: Completed