KAAN MERT BERKEM

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WORK EXPERIENCE

Founding Engineer, Komb IO LLC, Ankara, Turkey January 2023 - Present

- Created a Google Chrome extension that serves as a shopping assistant for multiple platforms. The extension communicates with a service that is served via AWS.Extension is based on pure JavaScript, HTML and CSS.
- Created and hosted a website for the product. The domain has been registered via Amazon Route 53 and the website is hosted via AWS S3, Cloudfront. Jekyll is used to generate website related features like HTML, SCSS and YAML files. I created a simple CI/CD pipeline via Github Actions. When I push my files, they are automatically modified in my S3 bucket.
- Created a backend service. Python is used as the main language (v. 3.11) and Flask is used as the main framework. I created a REST webservice so it can communicate with the extension's requests. I used LangChain framework to operate AI related technologies. FAISS is used for data pipeline, where initial data exists in CSV files and it is converted to document vectors via OpenAI embeddings API, OpenAI API is also used for LLM (gpt-3.5) in order to create the chatbot experience.
- Hosted the backend service on AWS. The service is dockerized and pushed to ECR and images are used in EKS clusters. The instance management is handled by EC2. I've also used DynamoDB as the main database system.

Software Engineer, ILG Technologies LLC, Ankara, Turkey January 2017 - March 2022

- Developed an interactive service between multiple platforms of the company's projects using Google App Engine as host and Python as the scripting language. I was mainly responsible for implementing the web service from scratch.
- Developed and maintained an application called ILGExam360. The application provides an electronic platform for the Bar Exam in the USA for 19 states. I took over the project around April 2018 and used Node.js and Electron framework to create the desktop application and Java for the backend services. Backend services also included a grading module for the graders of the Bar exam, who used the module to grade and score the answers of the applicants of their respective state.
- A project that is used by law schools in the USA. The project enables the instructors to create their own exams and lets the students of their courses attend the given exams electronically. The students' end was a Node.js desktop application and the instructors' end was a web application with a backend of Java.
- Worked on an experimental project that was used for face recognition using OpenIMAJ library on Java.
- Designed and implemented Web Services using SOAP in Java and REST API in Java & Python.
- Worked on an experimental text analysis project.
- A project which is used by the applicants of the Bar Exam in the USA.
- Worked on a project which is used by the people who evaluate the applications of the Bar Exam applicants. The platform handles the entire application procedure of the applicants from the beginning to the end.

EDUCATION

Computer Engineering, Bilkent University, Ankara, Turkey 2012-2016

- Teaching Assistant for Computer Organisation Course, Spring 2015 and Spring 2016

Internships:

- **Innova, 2015**:**Accupoint LLC, 2014 Turkish State Railways, 2014:** Worked as a member of HAVELSAN project team, using SAP in their project.

AWARDS AND ADDITIONAL INFORMATION

- Partial (50% Education Tuition) scholarship in Bilkent University, 2012-2016
- Full scholarship in high school (TED Ankara College), 2008-2012
- Silver medal at U18 underwater hockey championship in Turkey, 2011
- Member of the Columbia University's Summer Program for High School Students at New York City, Branch: Computer Science, 2011.
- Attended to Nesin Mathematics Village, 2010