

DEMBA SOW

Computer Engineer | Full Stack Web & Machine Learning Developer | Content Writer | Polyglot

Python | Django | JavaScript | ReactJs | Typescript | NodeJS | Scikit | NLTK | MongoDB | Next.js

Notice Period	Mobile	Post Code / City	Email	LinkedIn	GitHub	Portfolio Website
2 days	+905388147641	54050 / Sakarya	dastech1998@gmail.com	LinkedIn	GitHub	My Website

Top Skills

Programming & Frameworks	JavaScript, React, TypeScript, Python, Django, Django REST Framework, Flask, C++, C#, PHP, Yii2 Framework, HTML5, CSS3, Bootstrap, Tailwind CSS, MVC, Web API, REST API, SOAP Web Services, RESTful APIs, Entity Framework, XML, JSON, PowerShell, Microservices
Web	React, Redux, TypeScript, Django, Django Rest Framework, Flask, React Testing Library, Next.js, Node.js, Express.js, jQuery, DevExpress, Material UI, HTML5, CSS3, Bootstrap, HTML, CSS, Tailwindcss, Flowbite, Yii2 Framework
Cloud & DevOps	Docker, Git, GitHub, AWS (Lambda, EC2, API Gateway), Azure (Azure Functions, Azure Active Directory, DevOps (VSTS), Azure Data Factory, Azure Service Bus, Azure Storage, Logic Apps, Web Jobs, Firewall/Networking), Pivotal Cloud Foundry (PCF), CI/CD Pipelines (Jenkins, Gitlab), TFS, Jira, Linux, Bash
Database	NoSQL (MongoDB, Redis), PostgreSQL (Prisma), SQL, Relation Database Design, SSAS (Tabular / OLAP), Oracle, MS SQL Server, PL/SQL & T-SQL Development, SSIS, SSRS, Data Migration, Tuning, MySQL, Stored Procedures / Functions, DB Jobs
Methodologies	SOLID, Scrum, TDD, OOP, SOA, OWASP, Microservice Architecture, Disaster Recovery Management
Tools & IDE	Visual Studio, VS Code, SSMS, TOAD, Fiddler, Postman, SOAP UI, Eclipse, Jenkins, Selenium
Networking	Network Protocols (TCP/IP, UDP, HTTP, DNS, SMTP, SNMP), Network Architecture (Network topologies, Architectures, Design principles), Routing and Switching (OSPF, BGP, and EIGRP), Subnetting and IP Addressing (IP addressing, Subnetting, CIDR notation), Firewalls and Security (IDS/IPS), Virtual Private Networks (IPsec and SSL VPNs), Network Troubleshooting (Tools: Wireshark and Traceroute) Network Monitoring (Nagios, Zabbix, and SNMP-based monitoring), Load Balancing, Wireless Networking (Configure and secure wireless networks, Wi-Fi standards & encryption), Network Management (SNMP, NetFlow), DNS Management, SSL/TLS, Proxy Servers
Machine Learning	TensorFlow, PyTorch, Scikit-Learn, Deep Learning, Neural Networks, Convolutional Neural Networks (CNNs), Recurrent Neural Networks (RNNs) Natural Language Processing (NLP): NLP frameworks, sentiment analysis, text classification Computer Vision (Image recognition, object detection, OpenCV) Data Preprocessing (Data cleaning, feature engineering, data augmentation), Model Training and Evaluation (Cross-validation, hyperparameter tuning, model selection), Model Deployment (Serving machine learning models, containerization (e.g., Docker), cloud deployment (e.g., RESTful API, AWS SageMaker)), Data Analysis (Exploratory data analysis (EDA), statistical analysis Data Visualization: Matplotlib, Seaborn, Plotly
Content Writing	Website blogs & content, SEO and SERP
Language Teaching	English, French, Arabic, Turkish

Certifications

- [Python for Everybody Course](#), University of Michigan Certification - Coursera
- [Career Skills in Software Development](#) Certification – LinkedIn
- [Full-Stack Web development Bootcamp](#) Certification – Simplilearn
- [Introduction to Project Management](#) – LinkedIn
- [Machine Learning Course](#), Stanford University Certification – Coursera

Career History

1. Final Project – Ohara Bookshelf, Sakarya University, February – June 2023

- Design, develop and deploy full stack web application Ohara; a comprehensive platform that aims to revolutionize the e-book reading experience.
- OHARA empowers users to create and organize personalized bookshelves, explore the collections of other users, and receive smart book recommendations.
- OHARA takes reading recommendations to the next level with its intelligent algorithms, analyzing users' reading preferences, history, and engagement with the platform to provide personalized book recommendations. It ensures that users are constantly discovering new books that resonate with them.
- OHARA also leverages cutting-edge technologies such as web scraping and text mining to provide valuable insights and ratings for recommended books, allowing users to make informed decisions before selecting their next read.
- Neural networks and real-world survey data integration to analyze users' emotions. By capturing facial expressions through a built-in camera feature, the platform can determine users' current emotional states and recommend books that align with their mood and emotional needs.

Tech Stack: React, Chakra UI, Chakra React Select, React Router DOM, Emotion, React OAuth Google, Axios, Formik, Yup, Framer Motion, React Icons, React Webcam, Zustand, Node.js, Express, NestJS, Axios, JWT, Passport, Prisma, Class Transformer, Class Validator, dotenv, Express Session, Google Auth Library, Morgan, Passport Google OAuth 2.0, Passport JWT, Passport Local, Reflect Metadata, Rimraf, RxJS, Pandas, Numpy, Natural Language Processing NLTK, Pickle, Selenium, Tqdm, Natural Language Processing NLTK, Sci-kit learn, Pandas, Numpy, Keras, Matplotlib, Tensorflow, Git, Github, Docker.

2. Full Stack Web Developer and Content Writer, [CarCheckUp UK](#), July 2023 – Present

- CarCheckUp is a UK-based car report provider that offers comprehensive reports to second-hand car buyers. These reports are designed to prevent issues after the purchase of a second-hand car.
- Development, design, and configuration of public web applications
- Backend APIs / Microservices development
- Integration of APIs, including UK and Experian Data APIs
- Development of REST APIs
- Utilization of technologies for monitoring and security like SonarQube, OWASP, Dynatrace, Fortify
- Development of CI/CD pipelines
- Infrastructure management on Azure using Terraform.
- Development of Unit Tests, E2E testing, and UI testing with Playwright
- Integration of SonarQube for code quality checks
- Peer code review and QA activities
- Data migration using Azure Data Factory
- Design and development of relational databases, including ORMs and Stored Procedures
- Performance improvement and troubleshooting on live and lower environments.
- Regular security vulnerability fixes and addressing CVEs following OWASP standards.
- Data reporting and visualization

Tech Stack: Python/Django, HTML, CSS, Tailwind CSS, Bootstrap, Django Rest Framework, REST APIs, UK and Experian Data APIs integration, Restful APIs, Web Services, Azure Data Factory, Azure API Management, SQL Development (Oracle/PLSQL, PostgreSQL, MS SQL Server/T-SQL), CosmosDB, Elastic Search, Kibana Dashboards, Logstash, Docker, Kubernetes (AKS), GIT, CI/CD (Gitlab, Github Actions, Azure DevOps, Jenkins), MS SQL Server, Postures, Jira.

3. Machine Learning and AI developer, [Work3 Teknoloji a.s](#), August 2023 – Present

- Currently started a part time position as a **Machine Learning** and **AI developer** at Work3 Teknoloji working on a diabetes care project.
- Explore the realm of personalized diabetes care through a hybrid approach that integrates cloud-based multi-dimensional models with edge AI.
- Develop a Hybrid approach that seeks to enhance the accuracy and efficiency of diabetes management strategies.

- Trying to answer the question “How can a hybrid architecture combining cloud-based multi-dimensional models and edge AI be leveraged to provide enhanced personalized care for individuals with diabetes?” with Edge AI and individual patient devices.

Technologies:

- **Cloud-Based Multi-Dimensional Models:** Cloud Infrastructure (e.g., AWS, Azure, Google Cloud), Big Data Technologies (e.g., Hadoop, Spark), Machine Learning Frameworks (e.g., TensorFlow, PyTorch), Data Processing and Storage (e.g., SQL, NoSQL databases), Electronic Health Records (EHR) Integration, Wearable Sensor Data Integration, Social Media Data Integration, Data Analytics and Visualization Tools
- **Edge AI Models:** Edge Computing Devices (e.g., IoT devices, edge servers), Real-time Data Streaming (e.g., MQTT, WebSocket), Model Deployment and Inference Frameworks, Patient Sensors and Wearable Devices, Data Preprocessing and Filtering, Personalized Treatment Recommendation Engines
- **Hybrid Architecture:** Cloud-Edge Integration Middleware, API Gateways for Communication, Data, Synchronization and Data Flow Management, Security and Authentication Mechanisms Monitoring and Logging Tools, Continuous Integration/Continuous Deployment (CI/CD) Pipeline
- **Additional Components:** User Interface (UI) for Patients and Healthcare Providers, Mobile App Development, Machine Learning Model Training Pipelines, Electronic Health Record Systems, Patient Data, Privacy and Compliance Measures, Data Backup and Recovery Solutions, System Scalability and Load Balancing Techniques

4. Part time English Teacher [Just English](#), 2023 – Present:

- While deeply immersed in the IT field, I recognized the importance of maintaining and nourishing my social connections, a true passion and strength of mine.
- I have been dedicating my time to part-time English teaching at Just English, an opportunity that allows me to combine my love for language with my commitment to fostering meaningful relationships.

5. Personal Projects, Sakarya University, 2020 - Present

- **Google Clone:**
-Description:
 A fully functional google Search Engine with flexible UI, where users can search quickly and efficiently.
-Tech Stack:
 Nextjs, Tailwindcss and Google API
- **Pinterest Clone:**
-Description:
 Developed a fully functional Pinterest Clone with all the basic features such as login/register, logout, posting, commenting, and more.
-Tech Stack:
 React, Nodejs and Sanity
- **ChatGPT clone:**
-Description:
 A fully functioning chatGPT server-side clone with basically all the basic functionalities. Here, creating new conversations, saving conversations, and adding new messages to an existing conversation is made possible. Crud functionalities can be performed on both messages and conversations. A newly added message will generate an automatic response from the ChatGPT openai API and create a new conversation.
-Tech Stack:
 MERN Stack+Tailwindcss and OpenAI API
- **E-commerce:**
-Description:
 Developed a full stack e-commerce web application with admin panel.
-Tech Stack:
 MERN Stack (MongoDB, ExpressJs, ReactJs and NodeJs), Tailwindcss, Sanity CLI
- **Full stack real estate website for a company:**
-Description:
 Developed a fully functional real estate web application with advanced admin panel and customers' site. The owner manages the site from the admin panel by adding properties, blogs, news etc.
-Tech Stack:

MERN Stack (MongoDB, ExpressJs, ReactJs and NodeJs), HTML5, Tailwindcss

- **Machine learning:**
Content-based, Collaborative Filtering and hybrid-based recommendation systems deployed with FastAPI.
- **Web scrapping using selenium:**
-Description:
Scrapped books information using book ISBN from Goodreads.com.
Performed text analysis for the book's reviews to categorize the overall book reviews by (positive, negative and neutral)
-Tech Stack:
Selenium, BeautifulSoup, Python, Scikit-Learn, NLTK
- **First Portfolio:**
-Description:
A portfolio to showcase my skills, blog posting implementation with markdown file.
-Tech Stack:
HUGO Framework
- **Second Portfolio:**
-Description:
A portfolio to showcase my skills, blog posting implementation with Django text editor.
-Tech Stack:
React, Tailwindcss, HTML5, Python Django.
- **Third Portfolio:**
-Description:
A portfolio to showcase my skills, blog posting implementation with Next.js, Markdown text editor.
-Tech Stack:
Next.js, React.js, Email.js, Particles.js and Markdown

Accomplishments

1. **Erasmus Student Exchange, Viana Do Castelo, Portugal, 2021 – 2022**
 - I participated in the Erasmus Students Exchange program and spent one year studying in Portugal.
 - Enhanced adaptability and intercultural skills. This experience deepened my appreciation for diversity, fostering personal growth.
2. **Students Union Presidency, Sakarya University Mauritanian Students Union, 2019- 2021**
 - Mauritanian Students Union President at Sakarya university for 2 years.
 - Certified by the Sakarya University Yedirenk International Students Federation.
3. **School Achievement & First Prize, Türkiye Maarif Foundation Schools Mauritania, 2018**
 - Completed my high school degree with a rating of **51st locally** and **1st in Türkiye Maarif Foundation**.
 - Certified and **fully funded scholarship guaranteed** by the **Türkiye Government** for bachelor's degree.

Education

1. **BSc Computer Engineering at Sakarya University, 2019-2023(Grade:3.3/4.00) – Honored Student Award**
 - **Fully funded scholarship** granted by the **Turkish Government**, which supported my four-year pursuit of a Computer Engineering degree.
 - Achieved a remarkable grade point average of 3.3 out of 4.00, recognized with the esteemed '**Honored Student Award**' a testament to my commitment to my field of study.
2. **BSc Computer Engineering IPVC Portugal, Erasmus+ Students Exchange Program, 2021-2022**
 - Global Academic Exposure: My Erasmus+ exchange at IPVC Portugal (2021-2022) expanded my horizons in Computer Engineering. Collaborating with international peers, I gained a global perspective.
 - Cultural Adaptability: Immersed in a new culture, I enhanced adaptability and intercultural skills. This experience deepened my appreciation for diversity, fostering personal growth.

Languages:

Did I mention that I speak 7 languages?

- Fulani (Native)
- English (Proficiency)
- French (Proficiency)
- Turkish (Proficiency)
- Arabic (Proficiency)
- Portuguese (Entry Level)
- Spanish/Italian (Basics)

Hobbies & Interests

- Reading
- Travelling
- Cooking
- Surfing
- Running
- Foreign Languages:
 - Learning
 - Teaching
- Writing