Shakhzod Shermatov

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python, php, javascript

Experience

Software Engineer, akeon GmbH   *Sep 2024 - June 2025*

Recorder App

○ Implemented FFmpeg audio processing backend converting WebM to MP3 with auto-cleanup.

○ Built a multi-token auth system with SHA-256 hashing & SameSite cookies with device-based session expiry.

○ Developed a MIME-based email system for audio and text attachments with SMTP auth.

LMS (Learning Management System for CBZ)

○ Developed a feature to register course participants, including form validation and ACF integration.

○ Created a course statistics module to track user engagement and visualize performance data.

○ Developed a dynamic search functionality for students and courses, enabling real-time filtering.

○ Implemented a student assignment system that checks student existence before enrollment or removal.

Education

42 Berlin (Coding School), *C language*   *Feb 2023 - Nov 2023*

○ **Libft**: Coded 42 functions in C that work the same as the original ones.

○ **get_next_line**: Reads the text from a file descriptor line by line until the end.

○ **ft_printf**: A function that behaves the same as "printf" in C.

Riga Technical University, *BSc. Economics*   *Sep 2019 - Jun 2022*

○ **GPA 6.7/10,** Winner of 2 Erasmus+ scholarships for studies at:

○ **Universidade do Minho:** Predictive Data Analysis, Power BI   *Feb 2021 - Jun 2021*

○ **Istanbul Technical University:** Fundamentals in Python   *Oct 2021 - Feb 2022*

Projects

Essential Words (essential-words.uz)

○ Built an interactive online platform to learn German and English words.

○ Integrated TTS for British and American pronunciation, caching audio with AWS S3 for loading efficiency.

○ Developed backend with Django to handle question storage and retrieval from database.

○ Created database with MySQL to efficiently store and retrieve over 200 vocabulary arrays.

○ Implemented IndexedDB to improve efficiency by caching the data.

Tech Stack: Django, MySQL, AWS S3, IndexedDB, JavaScript (TTS API)

Extract Links (Real-Time Web Crawler)

○ Developed a Flask-based web crawler that extracts links from websites in real time.

○ Implemented Server-Sent Events (SSE) to stream discovered links with status code live to the frontend.

○ Developed a dynamic frontend with a progress bar and live updates for enhanced UX.

Tech Stack: Flask, BeautifulSoup/Requests, SSE, JavaScript, HTML/CSS

Mini Tournament System
○ Developed a FastAPI tournament management system with PostgreSQL, Docker, and async SQLAlchemy
○ Implemented player registration, capacity limits, and duplicate prevention.
Tech Stack: FastAPI, PostgreSQL, Docker, Async SQLAlchemy, Alembic

Skills

○ **Languages:** Python (Django), PHP, JavaScript (jQuery/AJAX), C, HTML/CSS

○ **Technologies:** MySQL, PostgreSQL, Git / GitHub / GitLab, Linux / Ubuntu, Nginx, AWS

○ **Software Practices:** Algorithms & Data Structures, OOP, MVC, IndexedDB (caching)

Languages

○ Uzbek: Native   English: C1   German: B2   Turkish: B2   Russian: C1