Taras Zherebetskyy

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Summary

- Master's graduate at Fordham University with concentrations in Software Engineering and Artificial Intelligence.
- NCAA Athlete honored with Academic All-Conference recognition for athletic and academic achievements.
- Obtained Apache Kafka professional certification and created a Kafka project to scale data pipeline horizontally.
- Developed a betting-oriented social network served by microservices architecture and assessed reliability with performance testing.

Education

FORDHAM UNIVERSITY

New York, NY

MS in Computer Science | GPA 3.85

August 2022 - August 2023

Concentration courses in Software Engineering and Artificial Intelligence.

- Relevant Coursework: Advanced Computer Algorithms, Distributed Systems, Cloud Computing, Machine Learning, Software Engineering, Databases, Internet & Web Development, Artificial Intelligence.
- Scholarship: Full Varsity Swimming Scholarship.
- Awards: Earned Summa Cum Laude and Academic All-Conference honors while swimming 20 hours per week.
- NCAA Division 1 Achievements: Won 400 freestyle relay and 400 Medley relay at Atlantic 10 Championships, 2nd in individual 100 Free with a school record, and 3rd all-time fastest swim.

MCKENDREE UNIVERSITY

Lebanon, IL

BS in Computer Science

August 2018 – May 2022

- Scholarship: 90% Varsity Swimming and Academic Scholarship.
- Awards: Dean's list from 2018 to 2021.

Certificates

APACHE KAFKA September 2023

Udemy

Electronic Certificate

- In-depth knowledge of Apache Kafka Ecosystem, Architecture, Core Concepts, and Operations.
- Mastery of key Kafka concepts, including Topics, Partitions, Brokers, Producers, and Consumers.
- Practical application and use cases through creating a real-world Twitter Producer and OpenSearch Consumer.
- Familiarity with extended Kafka APIs, including Kafka Connect and Kafka Streams, along with insights into their use in Big Data architecture.

Projects

APACHE KAFKA – WIKIMEDIA

Git Repository

Technologies Utilized: Java, Docker, Kafka, OpenSearch, Conduktor, Zookeeper

- Configured a resilient system with **3 Kafka** brokers to distribute workloads, ensuring high availability and fault tolerance.
- Implemented Apache Zookeeper for efficient coordination and management of Kafka brokers, enhancing system stability and fault recovery.
- Integrated Conduktor into the architecture, offering visualization and control capabilities for Apache Kafka, simplifying monitoring and topic management.
- Created pipeline for storing data from topic in **OpenSearch**, enabling efficient data storage, retrieval, and analysis.
- Implemented **producer** and **idempotent consumers** processes to safeguard against duplicate data entries, ensuring data integrity within the database.

- Integrated Kafka Schema Registry for efficient data **schema management**, maintaining **data consistency** and compatibility between producers and consumers
- Simplified the deployment process by containerizing the system with **Docker Compose**, resulting in the seamless deployment of a three-node Kafka cluster and Zookeeper coordinator.

AMICABET

Project Demo | Git Repository | IEEE Paper

Technologies Utilized: Python, Flask, Bootstrap, Docker, Kubernetes, SQLite3, Google Cloud

- Engineered a betting-oriented **social network** platform that enables users to engage in diverse gambling activities between friends.
- Optimized it with **microservices** architecture and served with RESTful APIs.
- Deployed on Google Cloud Platform with **Kubernetes Engine Cluster & Docker** to scale on users' needs.
- Conducted performance testing on APIs with 10 threads, employing a ramp-up period of 60 seconds and a total duration of 5 minutes to assess system performance under sustained load.

SERVICENOW API PERFORMANCE TESTING

Git Repository | Performance Testing Report

Technologies Utilized: Python, JMeter

- Experimented on ServiceNow APIs to assess performance and responsiveness under different levels of load
- Utilized JMeter to test REST ServiceNow APIs, evaluating authentication, data retrieval, and system responsiveness.
- Conducted the testing with 20 threads per API, employing a ramp-up period of 240 seconds and a total duration of 15 minutes to assess system performance under sustained load.
- Evaluated sys_user API performance with varying parameters to observe its response in different scenarios.
- Conducted performance analysis focusing on retrieving high volumes of data from incident API.
- Created <u>GitHub repository</u> with shell script to automate the entire performance testing process, from test scenario setup to result analysis and reporting.

Experience

JUSTICE INTERNATIONAL

Mountain View, CA

Software Developer Intern (part-time)

May 2021 – December 2021

- Developed a dynamic and responsive social network web application using Vue.js
- Unit Testing inputs to given functions, classes, and components to ensure expected outputs are produced.
- Managed user interface design with Tailwind CSS to ensure a visually appealing user experience.
- Implemented GraphQL API to retrieve and update a web application's customer information efficiently.
- Played a crucial role in requirement analysis, design, and implementation stages following Agile SDLC methodologies.

CODE NINJAS Fremont, CA

Computer Coding Instructor (part-time)

June 2021 – August 2021

- Proficient Coding Instructor specializing in JavaScript, Web Development, Python, PyGame, and programming.
- Led instructional sessions for approximately 20 students, prioritizing topic comprehension.
- Facilitated interactive coding sessions promoting an environment conducive to active learning and problem-solving.
- Designed and fulfilled curriculum modules tailored to various skill levels, accommodating novice and advanced learners.
- Conducted regular assessments and provided constructive feedback to students, tracking their progress, and facilitating continuous improvement.

Skills

Computer Languages: Java | C++ | C# | Python | PHP | JavaScript | SQL | bash | XAML | HTML | CSS

Frameworks: Flask | Vue.js | Node.js | React.js | TailwindCSS | Bootstrap | WPF | Git

Libraries & Modules: scikit-learn | NumPy | XMLRPC | Sockets | Pandas | requests | threading | SQLite | matplotlib

Computing & Virtualization: Google Cloud Platform | Kubernetes | Docker | Kafka