Toe Arkar

Atlanta, GA, United States

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Education

Bachelor of Science in Computer Science

Webster University, Saint Louis, MO | *October 2016 − August 2020*
Minor: Mathematics

GPA: 3.58

Personal Project

Insurmate.app: Blockchain-Based Insurance Policy Management

- Leading the development of a private blockchain solution using Hyperledger Fabric to enable secure and transparent policy management and exchange in the insurance industry.
- Mentoring University of Nebraska Omaha (UNO) students in blockchain implementation and web development, sponsoring a capstone team for two consecutive semesters.
- Developed a full-stack Minimum Viable Product (MVP) using the MERN stack (MongoDB, Express, React, Node.js) and integrated it with blockchain for policy management.
- Exploring Ollama LLMs for fraud detection, policy verification, and automation in insurance processing, leveraging ontology and the semantic web to enhance decision-making and compliance.

Professional Experience

Founding Software Engineer

We Care Insurance, Inc. | Omaha, NE, USA | October 2022 - Present

Technical Advisor
Cristian Mateos, PhD (ORCID: 0000-0001-5761-1898)

- Developed scalable cloud solutions with Oracle Cloud Infrastructure (OCI) to enhance performance, efficiency, and cost-effectiveness.
- Modernized front-end development by migrating from JavaScript and jQuery to React, improving UI responsiveness and user experience.

- Optimized system performance with Redis caching for faster data access and RabbitMQ messaging for efficient inter-service communication, enabling real-time notifications and seamless asynchronous processing.
- Mentored interns, guiding software development best practices and fostering a collaborative learning environment.
- Worked with industry experts to refine system architecture, scalability, and performance, ensuring alignment with best practices.
- Launched products and supported user onboarding, ensuring a smooth transition and high user satisfaction.

Software Engineer

We Care Insurance, Inc. | Omaha, NE, USA | April 2021 - September 2022

Technical Advisor
Cristian Mateos, PhD (ORCID: 0000-0001-5761-1898)

- Built full-stack web applications with a Spring Boot backend and a JavaScript/jQuery frontend, using Axios for smooth client-server communication.
- Developed scalable database designs using JPA Hibernate ORM (Object-Relational Mapping), ensuring efficient data management, consistency, and reliability while maintaining a secure and well-structured flow of information.
- Ensured software quality by conducting unit and integration testing with JUnit, Mockito, MockMvc, and TestContainers, following a BDD (Behaivor-Driven Development) approach.
- Tested and optimized APIs using Postman, improving request-response validation, efficiency, and system performance.
- Implemented role-based access control (RBAC) and security policies using Spring Security, strengthening system security and user authentication mechanisms.
- Automated deployment workflows through Docker and GitHub Actions, streamlining the CI/CD pipeline for efficient software delivery and version control.

Software Engineer Intern

We Care Insurance, Inc. | Omaha, NE, USA | September 2020 - March 2021

- Designed and optimized SQL database schemas to improve data storage efficiency, retrieval speed, and performance.
- Developed and implemented API integrations for vehicle identification number (VIN) validation, address verification, and document management, leveraging Amazon S3 for secure and scalable storage solutions.
- Enhanced web application functionality by integrating JDBC, XML, and JavaMail, improving data handling, usability, and system performance.

Database Developer Intern

Forkaia | Irvine, CA, USA | June 2019 - August 2019

- Collaborated with research teams to develop data models and optimize relational databases.
- Normalized database structures to Fourth Normal Form (4NF) to ensure data integrity.

- Created Entity–Relationship (ER) models, database triggers, indexes, views, and queries to streamline operations.
- Built a Python-based database management system for research and analysis applications.

Technical Skills

Programming Languages

- Java, JavaScript

Frameworks & Libraries

- Front-End: React, Bootstrap, Astro, jQuery
- Back-End: Express.js, Mongoose, Spring Boot, Spring Data JPA
- Blockchain: Hyperledger Fabric
- Testing: Mockito, JUnit, MockMVC, Jest, Testcontainers

Databases

- MongoDB, MySQL, Redis

Cloud & Infrastructure

- Oracle Cloud Infrastructure (OCI), AWS S3, Docker, RabbitMQ

Security & Access Control

- Spring Security, Role-Based Access Control (RBAC)

Software & Tools

- GitHub, Bitbucket, Jira, Postman