AYSU DALOGULLARI

Software Engineer
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Education

University of Southern Mississippi
MS in Computer Science 08/2023 - 12/2024

NCAA D1 Student-Athlete, Sunbelt Conference Academic Honors(4.0 GPA), and Conference Player of The Week
- Honors. Publication: "Designing For Diversity: Dynamic Persuasive Strategies in MHealth App Development", BCSS 2024.

University of Tulsa
BS in Computer Information Systems & Business Management 06/2019 - 05/2023

- NCAA D1 Student-Athlete (Ex-Professional Volleyball Player), 4 American Conference Academic Honors.

Experience

Skin Check Remote
Software Engineer 08/2024 - Present

- Spearheaded the design and development of SkinCheck Connect, a new telehealth iOS product, using Swift and SwiftUI, from backend API architecture to full frontend implementation.
- Built a robust network manager and modular API request system, improving maintainability and scalability across the mobile platform.
  Led the architectural design of backend endpoints, collaborated with cross-functional teams, and implemented seamless communication
- between the iOS client and server.
  Engineered the development of testing, building, and deploying key features for the Telehealth MD platform using React and
- TypeScript, resulting in a 40% increase in user engagement by enhancing Telehealth connections, remote patient monitoring, and AI-assisted diagnostics.

University of Southern Mississippi Mississippi, MS
Graduate Research Assistant- Computer Science Department 08/2023 - 12/2024

- Researched Persuasive Tech System Design and Behavior Change for a mobile health app, securing dissertation committee publication.
- Redesigned and developed the nursing department's web interface using Next.js and React, enhancing the web application's user experience by 60%.
- Developed and deployed a MySQL database within Kubernetes and Docker, facilitating seamless access for over 200 students and professors to the student request form page while enhancing overall data management efficiency.

Projects

VNL Win Probability Model Project (ML) - Github

- Developed a machine learning-based win probability model for Volleyball Nations League (VNL) using Python and data science techniques.
- Created data scraping scripts with Selenium to gather match statistics such as game times, teams win-loss history.
- Implemented machine learning algorithms such as Decision Trees, and ANN to successfully predict match outcomes and visualize results.

Intrusion Detection System (ML) - Github

- Developed a machine learning-based Intrusion Detection System (IDS) using Python to identify and prevent unauthorized access by analyzing network traffic patterns and detecting anomalies.
- Implemented feature extraction and selection techniques to enhance model accuracy, leveraging algorithms such as decision trees and support vector machines, achieving a high detection rate and reducing false positives.

Game Developer (Ball is The Enemy) - Github

- Developed an interactive game with JavaScript, HTML5, and CSS3, featuring smooth animations and responsive controls.
- Designed multiple levels with increasing difficulty and a visually appealing UI/UX. Implemented real-time collision detection, game physics, and sound effects for enhanced user experience.

Skills

Programming Languages React , Typescript, Python, HTML, CSS, Javascript, Java, SQL, NoSQL, Swift

Frameworks and Libraries Tensorflow Pytorch Numpy Pandas SpringBoot Flask Selenium Django Angular Jest PHP