KAVISHA SHAH

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Qualities

Detail Oriented, Passionate, Resilient, Collaboration and Teamwork, Effective Communication, Analytical Thinker, Innovative Problem Solver, Strong Logical Reasoning, Proactive Researcher

Education

Pandit Deendayal Energy University, Gandhinagar, India   **August 2021 - June 2025**
Bachelor of Technology in Computer Engineering   *GPA: 8.84/10*
- Coursework: Object Oriented Programming, Operating Systems, Database Management Systems, Data Structures and Algorithms, Design Patterns, Digital Electronics and Computer Organization, Engineering Graphics, Discrete Mathematical Structures, Theory of Computation, Compiler Designing and System Software, Design and Analysis of Algorithms, Computer Networking, Software Engineering, Information Security, Artificial Intelligence, Big Data, Cloud Computing, Full Stack Web Development, Machine Learning, Digital Forensics, Blockchain Technology, Information Retrieval System, Understanding Incubation and Entrepreneurship

Skills

- **Languages**: Python, C, Java, HTML, CSS, JavaScript, Scala
- **Databases**: MySQL, MongoDB, PostgreSQL
- **Libraries and Frameworks**: Pandas, Numpy, NodeJS, ExpressJS, ReactJs,,Django, Angular, PHP , Flask, Jinja ,Bootstrap, TensorFlow, Keras, Flask, Matplotlib
- **Technical Skills**: Full Stack Development, Data Structures and Algorithms, Git ,Amazon Web Services

Experience

Span Inspection Systems Pvt. Ltd., Gandhinagar, India   **January 2025 - April 2025**
Internship
- Developed various machine learning models for the company.
- Implemented algorithms for detecting items like broken tablets, missing pills, or packaging anomalies.
- Worked on analyzing complex datasets and designing effective solutions that could improve our product detection systems.
- **Skills developed**: Machine Learning, Data Processing, Collaboration
- **Technology used**: Python, TensorFlow, PyTorch

WealthAffinity Softech Pvt. Ltd., Ahmedabad, India   **May 2023 - November 2023**
Internship (7 months)
- Developed and maintained backend components for stock market price prediction models.
- Implemented algorithms for real-time stock price analysis and prediction.
- Worked on data collection, preprocessing, and integration from financial APIs and databases.
- **Skills developed**: Back-end development, Data Processing, API Integration, Collaboration
- **Technology used**: Python, Javascript, Django, Flask, MySQL, Docker

Octopus Technologies Pvt. Ltd., Surat, India   **May 2024 - July 2024**
Internship (3 months)
- Worked on react app to create an e-Commerce Website.
- Gained experience in integrating front-end and back-end components for seamless data flow.
- Learned how to implement user authentication and registration features using industry-standard practices.
- **Skills developed**: Front-end development, Back-end development, Database management, Team Work and Communication, RESTful APIs
- **Technology used**: React, NodeJS, MongoDB   Certificate

TechVantage, Ahmedabad, India   **December 2023 - January 2024**
Internship (1 month)
- Worked on react app to create a portal.
- Wrote python scripts to extract data from websites.
- **Skills developed**: Front-end development, Back-end development, Database management
- **Technology used**: React, NodeJS, MongoDB, Web scraping   Certificate

Civic and Social Internship - Go Dharmic NGO, Ahmedabad, India   **June 2022 - July 2022**
Volunteering (1 month)
- Conducted food distribution drives, ensuring nutritious meals reached underprivileged communities.

- Organized and led educational sessions, teaching essential academic skills to underprivileged students and creating a supportive learning environment.   Certificate

Tresna Foundation, Ahmedabad, India   **July 2023**
Volunteering (1 month)
- Supported students in enhancing their digital literacy skills, focusing on MS Office and the basics of web development using HTML and CSS as part of project PAHEL (Digital Literacy and Youth Employability Program).
- Taught both scholastic and co-scholastic subjects to garden class children, including English speaking, counseling, and team-building activities for the students.   Certificate

Certifications

- Understanding Incubation and Entrepreneurship Certificate
- The Complete 2023 Web Development Bootcamp Certificate
- IBM Data Science Course Certificate
- Cybersecurity for Everyone Certificate
- The Bits and Bytes of Computer Networking Certificate

Publications

Leveraging Transfer Learning in Computer Vision for AI-Powered Orthopedic Assistance: A Sustainable Approach for Healthcare 4.0   DOI link   **August 2024**
- **Status** : Accepted for Publication (International Journal of Internet Manufacturing and Services under Inderscience Publishers)
- This research work presents a deep learning-based system using transfer learning to classify bone fractures using X-ray images. Various techniques are employed to enhance the performance, such as the Adam optimizer, the BGR method for image pre-processing, and dropout regularization to prevent overfitting.
- The proposed VGG16 model achieved a validation accuracy of 96.62% during model validation.

Advancements in Elliptic Curve Cryptography: A Review of Theory and Applications   DOI link   **October 2024**
- **Status** : Published (IEEE Xplore)
- Provides a comprehensive examination of the latest developments, applications, and theoretical foundations in the field of elliptic curve cryptography, offering insights into its growing significance in modern cryptographic protocols. It also explains strengths, weaknesses, and optimal applications along with future scopes.   Certificate

A Pioneering and Reliable Technique for Optimizing Aerial Route Planning   DOI link   **August 2024**
- **Status** : Accepted for Publication (Inderscience Journals)
- Addresses the challenge of identifying the most optimal path in a fully connected graph, where edges exceeding a length "x" are unusable.
- Focuses on balancing distance, efficiency, and connectivity to satisfy constraints while minimizing overall cost or maximizing utility.
- Explores combinatorial solutions for identifying the optimal route in complex network structures.

Projects

Bone Fracture Classification   Github Link
- This Deep Learning model classifies X-ray images of bone fractures into fractured or not-fractured with an accuracy of 99.57%
- **Skills developed**: Machine Learning, AI, Deep Learning
- **Technology used**: Python, Tensorflow, Matplotlib, Pandas, Numpy, Seaborn, Keras

Shortest Aerial Path Finding Simulation   Github Link
- This website takes inputs as Departure and Arrival. It finds the best path dynamically for the given inputs.
- **Skills developed**: Front-end development, Back-end development, Database management
- **Technology used**: Flask, Bootstrap, HTML, CSS, MongoDB

Blood Cell Classification
- Developed a machine learning model to classify blood cell images into categories (e.g., red blood cells, white blood cells, platelets) with 99.6% accuracy.
- **Skills developed**: Image Processing, Deep Learning, Data Analysis
- **Technology used**: Python, TensorFlow, Scikit-learn, Matplotlib, Pandas, NumPy, OpenCV

OS Task Management Simulation   Website Link
- This website helps you to simulate a few OS task management algorithms.
- **Skills developed**: Front-end development, Back-end development, OS Algorithms, Data structures
- **Technology used**: NodeJS, MongoDB, XML

Artificial Human Intelligence (AHI) Object Detection System

- Developed an AI-powered system that integrates real-time object detection using YOLO and speech recognition for hands-free interaction.
- Automated dataset creation and annotation in YOLO format, enabling seamless training of custom object detection models.
- **Skills developed**: Computer Vision, Deep Learning, Speech Processing, Real-Time Systems
- **Technology used**: Python, OpenCV, YOLO, SpeechRecognition Library, PyTorch

Socio Social Media App [Github Link]

- This website enables users to create and interact with social media posts dynamically. It provides functionalities such as liking, commenting, and following other users.
- **Skills developed**: Full-stack development, API integration, Database management
- **Technology used**: Node.js, React, MySQL

Food Delivery Website [Github Link]

- This app helps you to order your favorite food from the best restaurant.
- **Skills developed**: Front-end development
- **Technology used**: ReactJS, JSON server (For dummy backend)

Line Follower Robot

- This is an IOT based project which uses Arduino and IR sensors to detect and follow the line. I optimized it further in terms of speed and time.
- **Skills developed**: Integration of IOT components, Coding with Arduino
- **Technology used**: Arduino IDE, C++

Smart Home Automation System

- Developed and implemented an IoT-based smart home automation system leveraging hand gesture recognition.
- Integrated Python for gesture recognition using MediaPipe and text-to-speech (TTS).
- **Skills developed**: IoT integration, Python programming, Arduino coding, Bluetooth communication
- **Technology used**: Python, MediaPipe, Arduino IDE, C++

Quick Notes

- Effortlessly organize and customize your notes with real-time updates and a range of color options for enhanced productivity.
- **Skills developed**: Front-end development
- **Technology used**: ReactJS,HTML,CSS,JavaScript

StayInIt - The Easy Way to Accommodation

- Built a Hostel Finder using MERN stack with OTP-based login and secure password recovery.
- Added wishlist, filters, detailed property views, and Google Maps API for location display.
- Achieved 100/100 Best Practices and 75/100 performance on Google Lighthouse, outperforming competitors.
- **Skills**: Front-end, Back-end, Database, API integration
- **Tech**: ReactJS, HTML, CSS, Express.js, JSON

URLShortner

- This website shortens lengthy URLs and makes them easy to type.
- **Skills developed**: Front-end development, Back-end development, Database management
- **Technology used**: EJS, Bootstrap, NodeJs, ExpressJs, Mongoose