

Bhavya Minesh Shah

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Research: <https://scholar.google.com/citations?user=34NoLQ8AAAAJ&hl=en>

EDUCATION

Master of Science in Robotics and Autonomous Systems (Artificial Intelligence)	Expected May 2026
Arizona State University, GPA: 4.0 / 4.0	Tempe, Arizona, United States
Bachelor of Technology in Computer Science and Engineering	July 2023
Vellore Institute of Technology, CGPA: 7.8 / 10	Vellore, Tamil Nadu, India

PROFESSIONAL EXPERIENCE

Deep Learning Engineer	August 2023 - May 2024
Accurate Industrial Controls Pvt Ltd	Pune, Maharashtra, India

- Constructed an anomaly detection pipeline for defect detection in LPG cylinders, automating the process and enabling scalability to any manufactured products.
- Developed B-Star algorithm for the Autonomous Boat project, increasing speed by 300% compared to A-Star and enhancing marine and grid-based path planning.
- Suggested changes for integrating data from camera and radar by merging using UNIX timestamp instead of timestamp from microcontroller clock.
- Mentored a team of interns on the application of AI in Robotics and Industrial Automation while collaborating closely with hardware engineers and software developers.

INTERNSHIP EXPERIENCE

Machine Learning Intern	September 2022 - March 2023
Swasthya.ai	Mumbai, Maharashtra, India

- Implemented a scalable pipeline in Python to process and extract structured data from vast unstructured medical sources, including OPD records and prescription notes.
- Utilized NLP techniques including Lemmatizer, Stemmer, Regular Expressions, etc to remove inconsistencies and expand medical abbreviations in medical records.
- Trained, tested and deployed BERT for Name Entity Recognition and extraction of useful information from new data collected by the web application to automate medical record-keeping.
- Employed cloud-based models in Microsoft Azure and Amazon Web Services to improve the accuracy of the entity detection and prevent false positives by 80%.
- Consulted with an oncologist to verify the results of the extraction pipeline and Machine Learning models and gain feedback on the practicality of approach.

TECHNICAL SKILLS

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- **Programming Languages:** Python, C/C++, Java, JavaScript, MATLAB, PHP, HTML, CSS, JQuery, AJAX, Bootstrap, SQL, NoSQL, MongoDB, PostgreSQL
 - **Domains:** Artificial Intelligence, Machine Learning, Deep Learning, Robotics, Computer Vision, Natural Language Processing, Computer Science, Web Development, Automation, Reinforcement Learning, Statistics, Calculus, Linear Algebra
 - **Technologies:** Docker, Robotic Operating System, Gazebo, OpenCV, Django, Flask, TensorFlow, PyTorch, MediaPipe, Selenium, BeautifulSoup, LangChain, NVIDIA Triton Inference Server and Client, ONNX, TensorRT, Large Language Models, Transformers, AWS, Microsoft Azure, Microsoft Office 365.

PROJECT EXPERIENCE

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- Object Measurement using Computer Vision [March 2021 - May 2021]
 - Object Detection leveraging Semantic Segmentation [March, 2023 - July, 2023]
 - Image Captioning Web Application [May 2023 - July 2023]
 - Text Summarization and Language Translation Transformer [July 2023 - August 2023]
 - Simulation of BStar for Path Planning [May 2024 - July 2024]
 - Non-RL Card Player [September 2024 – December 2024]