Vedant Jayant Padole

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Professional Summary

I am a dedicated and motivated professional with a passion for Artificial Intelligence and Machine Learning. I have developed a strong foundation in Artificial intelligence and web development. I thrive in dynamic and collaborative environments, bringing a proactive and innovative approach to problem-solving now looking to enhance my skillset with a Masters degree.

Education

- B. Tech in Computer Science and Engineering (AI & ML) | (July 2020-present) CGPA – 9.48
  Shri Ramdeobaba College of Engineering and Management, Nagpur
- XII (State Board) | Tarkunde Dharampeth Science College, Nagpur   80.77% | (2020)
- X (State Board) | Somalwar High School Nikalas Branch, Nagpur   96.4% | (2018)

Internships

Suvidha Foundation – 1st September – 1st October 2023
Machine Learning Intern - Position
I taught underprivileged girls in collaboration with CODE KARO YAARO on subjects like CS, Python & Machine Learning.

Feynn Labs – 1st May – 30th June 2023
Machine Learning intern and Market segment analyzer - Position
Worked on an Internal Project of the company in which I had to analyze Tea Plantation shops pan India.

Bio Spectronics – 1st October – Present
Machine Learning intern - Position
Worked to precisely detect uric acid levels in blood using colorimetry and machine learning algorithms to predict the concentration of uric acid.

Skills

Object detection Frameworks (YOLO, SSD) | Machine Learning Libraries like Tensor Flow, Keras, PyTorch, sscikit-learn, Opencv | Natural Language Processing | MERN Stack | MATLAB | Salesforce | Java | C | Python | Weka | Spark platform | AWS |

Academic Projects

- **Natural Language Processing for American Sign Language**
  Built the model which can detect the sign language using various tools and built a natural language processing pipeline to convert those labels into text. Also used data augmentation tools to prepare the data. Got acquainted with models like LRCN, LSTM, YOLO(v5) and YOLO(v8). Also developed a research paper which is under review in Journal of Visual Communication and Image Representation with title as "American Sign Language Recognition and Translation using Deep Learning frameworks" and Manuscript number: JVCI-23-1982
- **Stock market price estimation**
  Built the model using deep learning frameworks which can estimate stock prices based on past 100 days data. Used LSTM to achieve the objectives and compared the results with other algorithms like GRU's

- **Drowsiness Detection and Hypnosis recognition on Samrudhi Mahamarg**
  Built the model which can detect drowsiness and hypnosis when a person is in his car
  Especially on Samrudhi Mahamarg. Used different object detection frameworks like YOLO, SSD
  and also many deep learning frameworks.
- **Smartphone-based Portable Blood Parameter Sensing using Machine Learning**
  Built the model which can detect uric acid levels using colorimetry and machine learning techniques.
  Used different reagents to find the best reagent which can be used for staining purposes.
  Implemented different algorithms like linear regression, Simple Vector Regression to predict uric
  acid concentration using Red, Green and Blue values of the color of the solution. With research paper
  under review.
- **YOLO: A Novel Virology-Based Detection System for the Detection of Protozoan Parasites**
  This project combined two different fields of science Virology and Artificial Intelligence. goal of this
  work was to develop a precise viral detection technology capable of microscopic identification, using
  YOLO for real-time analysis. Compared different machine learning and object detection algorithms
  to find the best possible framework to achieve the project goals. The research paper is under review
  in New Generation Computing journal, entitled as "YOLO-Based Deep Learning for Instantaneous
  Virus Identification at Microscopic Scale" and submission id: NGCO-D-23-00687.

Achievements

- Got felicitated by RCOEM Technology Business Incubators Foundation (TBI) for best innovation in
  Information Technologies for American Sign Language.
- Successfully filed 2 design patents for Electronic Component Cutter, Modern water bottle holder
  table and thus solving modern day issues. The submission id for both is 402849-001 and 402857-001
  respectively in intellectual property India.
- Won RCOEM's Innovation Island for best innovation in 2022 conducted by the Mechanical
  department of RCOEM.
- Qualified Gate examination in year 2023 with 94 percentile in Computer Science field.
- Got a rank of 88 in scholarship examination for eighth grade students, and rank of 113 for fourth
  grade students.
- Qualified Pravinya and was selected for Pradnya examination and eventually qualified pradnya
  examination.
- Qualified Maharashtra Talent Search Examination twice got 137 and 109 ranks respectively.