# Dhwani Desai

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## EDUCATION

**MSc, Computer Science** Jan'21 – Aug'22
Lakehead University, ON, Canada 3.3/4.0 GPA

**BTech, Computer Science** Aug'15- May'19
Uka Tarsadia University, GJ, India 3.7/4.0 GPA

## KNOWLEDGE & SKILLS

**Programming Languages**: Python, C, C++, Java, SQL, Scala
**Web Development**: CSS, HTML, Java Script
**Frameworks & Libraries**: Node.js, React.js, Reactnative, Express.js, TensorFlow, NumPy, Pandas, VueJs, Angular, Mocha
**Database**: MySQL, MongoDB, PostgreSQL, Elasticsearch, DynamoDB
**Version Control**: Git, GitLab, VS code, Jira, Eclipse, IntelliJ
**Cloud Platforms**: Amazon Web Services, Azure, EC2, S3, SNS
**Operating systems**: MacOS, Windows, Linux

## WORK EXPERIENCE

**Technical Support Analyst, DependableIT, Hamilton, Ontario** Oct'22 – Current

- Resolving technical issues associated with customer's internet connection, cable TV and digital phone.
- Resolving complex issues requiring detailed systems and applications knowledge that have been escalated from Tier I.
- Providing assistance with 2nd level tickets and support for network-related problems.
- Supporting Enterprise IT teams, troubleshoots and maintains Servers, Network (WAN & LAN), Monitoring UPS and Switches, Backup Environment and external vendors.
- An active listener who can show empathy and patience in a non-scripted environment. Working in a fast paced, high volume, environment.

**Software Developer, LogicTrix, Surat, Gujarat** June'19 - Dec'21

- Enhanced the performance of an e-learning application by implementing GraphQL-based APIs using MySQL, Node.js, and Apollo.
- Achieved a 20% cost reduction for the e-learning application by implementing On-Demand DynamoDB tables. Improved the user feed functionality by designing a database schema that efficiently supports 8-10 filters.
- Integrated advanced full-text search feature using Elasticsearch, allowing users to search for creators and relevant courses based on keywords, categories, and filters.
- Led the development and deployment of an employee tracking system utilizing deep learning-based face recognition to measure productive hours. Optimized the model's hyperparameters for various lighting conditions, achieving an impressive accuracy rate of 95%.

**Software Developer Intern, Homebethe E-commerce Pvt Ltd.** Dec'18 – May'19

- Created a cron reporting engine in Python to automatically generate reports in CSV and PDF files increasing productivity by 60%.
- Implemented 5+ crucial features utilizing reusable components using ReactJS, HTML, and CSS. Developed API endpoints in Django Rest Framework to interact data between multiple systems.

## PROJECTS

**Attendance system using facial recognition** GitHub

- This attendance system using face recognition is developed using OpenCV and CN which automates the attendance system.
- It takes an image from captured video, detects and recognizes faces and marks attendances in an excel sheet.

**Real time age and gender detection** GitHub

- The system was developed which detects all the faces from a scene and performs the gender and age identification process on the faces from the scene.

- A real time gender and age detection using transfer learning method is implemented. In this approach, Caffe, a deep neural network is used for transfer learning.

**Face mask detection** GitHub

- A Deep Learning-based system is proposed to detect whether the mask worn proper or not.
- This system uses a dual-stage Convolutional Neural Network (CNN) architecture that can recognise both masked and unmasked faces and is compatible with pre-installed CCTV cameras.

## PUBLICATION

Desai, D.; El-Ocla, H.;Purohit, S.; Data Dissemination in VANET Using Particle Swarm Optimization. Sensors 2023, 23, 2124.

- Data dissemination is a promising application for VANETs. Existing data dissemination strategies typically rely on a random-access protocol, which leads to the collision problem that cannot be avoided.
- A new appliance for VANET broadcasting was created which will increase the packet delivery ratio. The fitness function was using the Particle Swarm optimization technique.