

# Jalpa Deepak Patel

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## EDUCATION

**Master of Science in Computer Science, Co-op**  
UNIVERSITY OF WINDSOR

Windsor, ON | June 2022

**Bachelor of Technology in Computer Science Engineering**  
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY

India | June 2018

## SKILLS

**Languages :** Python, Java, C, PHP, C#, Bash, SQL

**Web Development :** AngularJS, JavaScript, HTML/CSS, Bootstrap

**Technology :** Git, Machine Learning, AI, Linux, AWS, MySQL, Docker, MongoDB, Mobile App Development, IoT

## WORK EXPERIENCE

**Graduate Assistant and Tutor** | UNIVERSITY OF WINDSOR

Windsor, ON | Jan 2020 - Present

- Lead assistant for **Relational Database, Advanced Systems Programming, Computer Architecture** and **Theoretical Foundations of Computer Science**
- Tutored Design and Analysis of Algorithms course for concepts of **Dynamic Programming, Graph Algorithms, Searching** and **Sorting and Complexity Analysis**
- Instructed in writing optimal code to address **problem-solving, time and space complexity**
- Automated the task of loading the student submissions on local machine using **Python** scripts

**IT/Software Developer- Coop** | GROUND EFFECTS LTD.

Windsor, ON | May 2020 - Aug 2020

- Reduced web page loading time by 20% by **optimizing data loading and management** from **MySQL Relational Database**
- **Optimized MySQL database queries**, stored procedures, and the efficiency of **SQL Server Reporting Services**
- Worked on report customizations and writing custom multi-select dropdown driver using **Node.js**

**Software Engineer** | IESOFT TECHNOLOGIES PVT. LTD.

India | May 2018 – Jul 2019

- Handled customers, orders, and inventory data on a scalable database system on different servers
- Implemented agent **route tracking system**, which accelerated business growth by 15
- Simplified the use of CRM System by developing **elastic search** and CRON job **APIs**

**Intern (Software Developer)** | TECHNOLEXIS PVT. LTD.

India | Jan 2018 – May 2019

- Worked on photogrammetry and IoT project to create a 3D Body Scanner
- Programmed to save the results from the sensors and hardware devices to meet the project requirement
- Achieved the target of creating a 3D printed model from photos by **programming sockets** and using **Python**

## VOLUNTEER EXPERIENCE

**Open-Source Developer** | PATHWAYS EDUCATION

Toronto, ON | Aug 2021 - Dec 2021

- Worked on developing a platform for **Open-Source** developers to contribute
- Conducted relevant **market-scan** and checked the relevant **software development guidelines**

**Machine Learning Researcher** | WINAIML

Toronto, ON | Mar 2020 - Sep 2020

- Worked on **Machine Learning** tasks involving **Exploratory Data Analysis(EDA)** and **NLP**
- Contributed by preparing and maintaining **datasets** for the research project

- Developed baseline Machine Learning Models to compare with the proposed research model and documented the findings

## PROJECTS

### **Resource Allocation Optimization using RL** PYTHON, DEEP LEARNING, REINFORCEMENT LEARNING, BIG DATA

- Optimized the allocation of resources on cloud computing system using a reinforcement learning algorithm
- Reduced data loss during training of model to increase model efficiency using Python

### **Malware Prediction on various devices** PYTHON, DEEP LEARNING, AUTOENCODERS, EDA

- Classified malware-based applications using Autoencoders
- Increased the efficiency of Autoencoders algorithm by comparing it to different Deep Learning models

### **Social Media Content Analyst Tool** PYTHON, NLP, DATA ANALYSIS, SOCIAL NETWORK ANALYSIS

- Designed a system to identify reliable tweets on microblogging websites like Twitter
- Used Social Network Analysis to find groups of Informative Tweets and used State of Art models

### **Missionaries and Cannibal Problem** JAVA, AI, SEARCH ALGORITHMS

- Compared various AI search technique algorithms to solve the Missionaries and Cannibal Problem
- Analyzed time and space complexity for implemented algorithms using Object-Oriented concepts

### **Power Spy** JAVA, INTERNET OF THINGS (IoT), C#

- Designed IoT project to record electricity consumption trends to identify faulty appliances
- Developed a mobile application to view the results recorded from sensors

### **JASS - Android application** JAVA, ANDROID APPLICATION DEVELOPMENT

- Designed and developed a native Android Application that helps users to search songs by searching any phrase from the lyric of the song
- Developed the problem-solving application to include speech and text input from an offline music playlist s

## ACHIEVEMENTS

Completed Technology Entrepreneurship Programme, Indian School of Business	JUN 2016 - JUN 2018
Published a technical paper related to Data Analysis and IoT in IRJET journal	APR 2018
Completed SAP ABAP Course TAW10 & TAW12 modules	AUG 2016 - FEB 2017
Participated in an Accelerator for Product Development, JNTUH	JUL 2017 - MAY 2018
Organizer of coding events at Technical Association of CS, SMEC	AUG 2014 - AUG 2017