

# Karan Singla

Address: 2984 Donnelly Street,  
Windsor, ON N9C 1L8  
Phone: 519-977-2706

Website: <https://karansingla.com>  
Email: [singlak@uwindsor.ca](mailto:singlak@uwindsor.ca)  
LinkedIn: [linkedin.com/in/karan-singla/](https://www.linkedin.com/in/karan-singla/)  
Github: [github.com/karansingla06/](https://github.com/karansingla06/)

## SUMMARY OF SKILLS AND EXPERIENCE

- **2.5+ years of full-time Software Development** experience, including 1.5 years in Artificial Intelligence
- Languages: Python (Django, Falcon), Java, C++, HTML/ CSS
- ML/AI Libraries: Scikit-learn, Pandas, Matplotlib, Numpy, TensorFlow, Spark, NLTK
- Databases: MongoDB, MySQL
- Process and Tools: MS Azure Devops, version control using GIT, Scrum and Agile development methodologies

## EDUCATION

**Master of Applied Computing** at University of Windsor (UoW) with **GPA: 91** 2019 - Present  
**Bachelor's in Computer Science** from IIIT, Noida, India 2013 - 17

## WORK EXPERIENCE

**Senior Software Developer** at UST Global Mar 18 - Jul 19

Intelligent Computing Environment (ICE): UST's Natural Language Processing platform.

- Microservices based pipeline for data processing, named entity recognition, predictive models
- Took ownership of backend (API Design and Development)
- Database Design, Code Reviews, Client Management, Collaboration with design teams, CI/CD

Anthem Virtual Assistant (Proof of Concept): A chat-bot for the healthcare giant Anthem to answer user queries regarding insurance plan & coverage details.

- Parsing PDF documents to HTML to get data access by sections
- Responsible for extracting relevant information based upon the user query using natural language processing

**Software Engineer** at Infosys Jul 17 - Mar 18

Applications Migration to Azure Cloud

- Provided infrastructure, virtualization service on cloud MS Azure
- Deploying apps on virtual machines and testing after migration

**Software Engineer Student Intern** at Infosys Jan 17- May 17

**Web Developer Summer Intern** at Tnine Infotech Jun 16 - Jul 16

## ACADEMIC AND PERSONAL PROJECTS

**Admin Controlled Chatbot using Chat:** An admin controlled chatbot where admin can make any changes to the bot through chatting and interaction

- Used IBM Watson for creating the intents, entities, dialog flows for the bot
- Implemented REST APIs (Django) endpoints for the application
- Application Deployment using cloud Azure App service.
- <https://github.com/karansingla06/Admin-Controlled-VISA-Chatbot>

**YouTube Statistical Data Analysis:** Analysis done on YouTube trending videos, and COVID-19 videos.

- COVID-19 related data mining using YouTube Data v3 API
- Data Cleaning, Processing and Visualization using Apache Spark, Pandas, Matplotlib, Seaborn
- <https://github.com/karansingla06/YouTube-Trending-Videos-Analysis>

**Web Search Engine:** A Java web search engine based on the data collected using web crawling.

- Inverted index using Trie and Hashmap
- Ranking of web pages using Quick select algorithm
- Auto-completion using Trie and spell check using Edit distance algorithm
- <https://github.com/karansingla06/Web-search-engine>

**E-commerce with React, Django [personal]:** A web based e-commerce application using React, Django.

- User creation, authentication with session management
- REST APIs for CRUD operations on shopping cart
- <https://github.com/karansingla06/Ecommerce-React-Django>

**Multiple Characters Recognition with Tensorflow:** Building a model to identify Canadian postal codes

- Used EMNIST-ByClass dataset and built the neural network with Adam optimizer function
- Used OpenCV to preprocess, segment user image and identify the multiple characters
- <https://github.com/karansingla06/Characters-Recognition-NeuralNetworks-Tensorflow>

**Improving Computer Vision accuracy using CNN [personal]:**

- Used multiple data sources like Fashionist dataset, computer generated & real world images
- <https://github.com/karansingla06/ML-AI-Projects/tree/master/ComputerVision>

**Credit card fraud detection, Spam Detection [personal]:**

- Used Kaggle credit card fraud and spambase dataset respectively
- Trained with SVM, Naive Bayes classifiers and got accuracy of 96% and 91% respectively
- <https://github.com/karansingla06/ML-AI-Projects/tree/master/MLProjects>

## CERTIFICATIONS

- |  |        |
|--|--------|
| • "Applied Machine Learning in Python" - Coursera                                    | Apr 20 |
| • "Applied Plotting, Charting & Data Representation" - Coursera                      | Mar 20 |
| • "Introduction to TensorFlow for AI, Machine Learning and Deep Learning" - Coursera | Feb 20 |
| • "Spark for Machine Learning & AI" - LinkedIn Learning                              | Feb 20 |
| • "Building React and Django Apps" - LinkedIn Learning                               | Jan 20 |
| • "Natural Language Processing with Python for Machine Learning" - LinkedIn          | May 18 |
| • Microsoft Certified Solutions Associate (MCSA) - Cloud Azure                       | Nov 17 |

## ACHIEVEMENTS & COMMUNITY INVOLVEMENT

- |  |                |
|--|----------------|
| • <b>Graduate Student Representative</b> for School of Computer Science at UoW   | Sep 20-Present |
| • Participation in Code To Win nation wide competition at UoW                    | Oct 19         |
| • Volunteered for Community Clean Up event at UoW                                | Sep 19         |
| • Graduate Student Society (GSS) and Indian Students Association (ISA) volunteer | Sep 19         |
| • Spot Award for <b>Best Performance</b> at UST Global                           | Apr 19         |
| • Volunteer in raising funds for Kerala flood victims at UST and raised \$10000  | Dec 18         |