

Karan Singla

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SUMMARY OF SKILLS AND EXPERIENCE

- **2.5+ years of full-time Software Development experience**, including 1.5 years in Machine Learning, Natural Language Processing (NLP) in a fast-paced working environment
- Strengths include Python, REST APIs Design & Development, Big Data Exploration, Statistics, Machine Learning, Natural Language Processing, Team Collaboration, SDLCs
- **Specialization in Applied Data Science with Python** from UoMichigan through Coursera
- **Languages:** Python (Django, Falcon, Jupyter), Java, C++, HTML/ CSS
- **ML/AI Libraries:** Scikit-learn, Pandas, Matplotlib, Numpy, TensorFlow, Spark, NLTK
- **Databases:** MongoDB, MySQL, MS SQL Server
- **Process and Tools:** Azure Devops, Docker containers, version control using GIT, Scrum and Agile development methodologies

EDUCATION

Master of Applied Computer Science at University of Windsor (UoW) with **GPA: 90** 2019-Present
Bachelor's in Computer Science at IIIT, Noida, India 2013-17

WORK EXPERIENCE

Senior Software Developer at UST Global

Mar 2018-Jul 2019

Intelligent Computing Environment (ICE) [Python-Django]: UST's Machine Learning, NLP platform.

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

Software Engineer at Infosys

Jul 2017-Mar 2018

Migration of on-premise applications to Microsoft Cloud Azure

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

Software Engineer Student Intern at Infosys

Jan 2017-May 2018

Web Developer Summer Intern at Tnine Infotech

Jun 2016-Jul 2016

ACADEMIC AND PERSONAL PROJECTS

Admin Controlled Chatbot using Chat [Python-Django]: An admin controlled chatbot where admin can make any changes to the bot through chatting and interaction

- Used IBM Watson for named entity recognition to define the intents, entities, dialog flows
- Implemented REST API endpoints for the application
- Application Deployment using cloud Azure App service.

- <https://github.com/karansingla06/Admin-Controlled-VISA-Chatbot>

YouTube Statistical Data Analysis [Python, Jupyter]: 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>

Multiple Characters Recognition with Tensorflow [Python, Jupyter]: 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][Python, Jupyter]:

- 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][Python, Jupyter]:

- Used Kaggle credit card fraud and spambase dataset respectively
- Used Scikit-learn SVM, Naive Bayes classifiers and got accuracy of 96% and 91% respectively
- Followed the best practices of data cleaning, data exploration, feature selection, model selection, optimizing classifiers, hyper-parameters tuning, model evaluation
- <https://github.com/karansingla06/ML-AI-Projects/tree/master/MLProjects>

CERTIFICATIONS AND COURSES

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| • "Applied Machine Learning in Python" - Coursera | Apr 2020 |
| • "Applied Text Mining in Python" - Coursera | Apr 2020 |
| • "Applied Plotting, Charting & Data Representation" - Coursera | Mar 2020 |
| • "Introduction to TensorFlow for AI, ML & DL" - Coursera | Feb 2020 |
| • "Spark for Machine Learning & AI" - LinkedIn Learning | Feb 2020 |
| • "Building React and Django Apps" - LinkedIn Learning | Jan 2020 |
| • "Natural Language Processing with Python for Machine Learning" - LinkedIn | May 2018 |
| • Microsoft Certified Solutions Associate (MCSA) - Cloud Azure | Nov 2017 |

ACHIEVEMENTS & COMMUNITY INVOLVEMENT

- **Specialization in Applied Data Science with Python** from UoMichigan through Coursera
<https://github.com/karansingla06/Applied-Data-Science-Specialization-Coursera> May 2020
- **Graduate Student Representative** for School of Computer Science at UoWindsor Present
- Participation in Code To Win nation wide competition at UoW Oct 2019
- Volunteered for Community Clean Up event at UoW Sep 2019
- Graduate Student Society (GSS) and Indian Students Association (ISA) volunteer Sep 2019
- **Award for Performance Execution Mindset** at UST Global Apr 2019
- Volunteer in raising funds for Kerala flood victims at UST and raised \$10000 Dec 2019