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
- Strengths include Python, REST APIs Design and Development, Azure, Data Exploration, Machine Learning, Natural Language Processing, Agile Development, Team Collaboration, Communication
- **Specialization in Applied Data Science with Python** from University of Michigan
- **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, 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 JIIT, Noida, India 2013-17

WORK EXPERIENCE

Senior Software Developer at UST Global Mar 2018-Jul 2019

Intelligent Computing Environment (ICE): UST's Machine Learning, Natural Language Processing (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 2017

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

References available upon request

E-commerce with React, Django ***[personal][Python, Javascript, SQL]*****:** 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

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

- "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, Machine Learning & Deep Learning" - 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 UoM through Coursera — Apr 2020
  https://github.com/karansingla06/Applied-Data-Science-Specialization-Coursera
- **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
- **Spot Award for Best Performance** at UST Global — Apr 2019
- Volunteer in raising funds for Kerala flood victims at UST and raised $10000 — Dec 2018

References available upon request