Karan Singla

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Github: github.com/karansingla06/

PROFESSIONAL SUMMARY AND SKILLS

- **2.5+ years of full-time Software Development experience**, including 1.5 years in Machine Learning, Natural Language Processing (NLP)
- 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 Computing at University of Windsor, Windsor, ON. **GPA: 90**   *2019-Present*

Bachelor of Technology 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) *[Python-Django]*: UST's Machine Learning, NLP platform.
- Microservices based pipeline for text mining, named entity recognition, predictive modeling
- Integration of existing NLP models Spacy, CoreNLP, Mitie, CRF for language english, spanish
- Took ownership of backend (API Design and Development)
- Database Design, Code Review, Client Management, Collaboration with UI team, 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-May 2017*

Web Developer Summer Intern at Tnine Infotech   *Jun -Jul 2016*

ACADEMIC AND PERSONAL PROJECTS

YouTube Statistical Data Analysis *[Python, Jupyter]*: Analysis done on YouTube trending videos, and COVID-19 videos.   *Jan-Apr 2020*
- COVID-19 related data mining using YouTube Data v3 API
- Data Cleaning, Processing and Visualization using Apache Spark, Pandas, Matplotlib,Seaborn

References available upon request

- https://github.com/karansingla06/YouTube-Trending-Videos-Analysis

Admin Controlled Chatbot using Chat *[Python-Django, Bootstrap]***:** An admin controlled chatbot where admin can make any changes to the bot through chatting and interaction.   *Sep-Dec 2019*
- 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

Multiple Characters Recognition with Tensorflow *[Python, Jupyter]***:** Building a model to identify Canadian postal codes   *Sep-Dec 2019*
- 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]***:**   *Feb 2020*
- 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]***:**   *Jan-Feb 2020*
- 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, 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 UoWindsor   *Oct 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 2018*