SFU
SIMON FRASER UNIVERSITY

Animesh

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Education

Degree	Institute	Year
Master of Engineering	Simon Fraser University, Burnaby	2021-2023
Bachelor of Engineering	Sri Siddhartha Institute of Technology, Bangalore	2010-2015

Experience

- **Binary Stream Software** *May. 2022 - Present*
  Jr Software Developer in AI Burnaby, CA
  – Deploying a recommendation engine to predict lease renewal probability for next term. It is estimated to increase average product revenue by 10 percent.
  – Implemented sales analytics model and integrated in with Power BI for sales team to estimate the sale of the company continent wise.
  – Developing IOT prototype for automatic update of billing usage and subscription billing in D365 platform.

- **Amelia.AI** *Aug. 2018 - Dec. 2020*
  Virtualization and Cloud Engineer Bangalore, IN
  – Maintained, upgraded, and deployed multiple VMWare ESXi infrastructure for various clients.
  – Quarterly reviewing infrastructure and figuring potential upgrade and repair of the infrastructure, Planning for scheduling implementation windows for system additions and enhancements with clients.
  – Gained Docker and Kubernetes knowledge, worked with dev environments for YAML deployments.

- **Dell Emc** *Feb. 2016 - Jul. 2018*
  Associate Delivery Specialist Bangalore, IN
  – Leading a team of 10 peers as Storage and IOD Level 1 lead. We were responsible for monitoring of the infrastructure and complete health check for all the devices in infrastructure for three environments Virtual Machines, SAN and NAS. Verifying the integrity and availability of all hardware and software resource in the infrastructure.
  – Deployed Virtual Machines from templates/bare servers and cloned from existing VM, P2V and V2V migrations, NTP server management, snapshot, resource allocation and management from Vcenter.

Projects

- **Emotional Messenger - Poster presented at CS Undergrad Research Symposium 22** *Jan. 2022 - Present*
  Text-to-Speech conversion using textual and facial emotion detection, Affective Computing Github
  – A multi modal approach to combine facial image recognition and textual and speech recognition models for emotion detection to analyze a text and convert it into to its emotion recognized speech. Tone of the text that we write is lagging emotions, we will try to combine facial expressions with the typed text to understand a particular emotion that is depicted in the text and voice out the text using the recognized emotion model.

- **Bitcoin and Hybrid Block-chain - Analyzing Selfish Miner Attack** *Jan 2022. - May. 2022*
  Analysis of Selfish Miner attack in Hybrid Block-chain networks using NS3 simulator Website
  – Worked on Simulating Hybrid blockchain network on NS3 and performed multiple versions of selfish miner attack on the network. Developed two algorithms to counter selfish miner attack and worked on their feasibility on real world scenarios.

- **NBA winner using Machine Learning** *Jan. 2021 - July. 2021*
  NBA prediction using Deep Neural Networks, Deep Learning Github
  – Literature survey about the state of Art deep learning and machine learning models in the sports prediction domain and find out that ensembled machine learning models exceeded human experts prediction by more than 5%. Worked on two machine learning models, Artificial Neural network with 5 hidden layers and Logistic Regression model to predict NBA match result and analysed the complexity in sports dataset.

- **Black Box Machine Learning Model Interpretation** *May. 2021 - Aug. 2021*
  Interpretation of Black box Models, Data Mining Github
  – Worked on complex machine learning models to understand the contribution of each variable and feature interpretation using basic algorithms, modified the idea behind LIME interpreter which is widely used in complex model designing.Dividing multidimentional dataset in latent representation and based on the black box models output developed a unsupervised K Medoid approach to generate relevance of data points in final prediction, This approach is a upgraded/modified version of LIME with more reliable insights and information.

- **Smart Helmet** *May. 2021 - Aug. 2021*
  ANC helmets - Smart and Advance Helmets, Project Development and Entrepreneurship GitHub

– A Smart Helmet device that could be fitted in all kinds of helmets and directly connect it to the mobile with an application to enable features like calling, listening to songs or podcasts, making groups for multiple helmet synchronization. Applications of the device can vary from riding gears to other domain such as construction and medical. It is an existing market product with smart and innovative approach for enhanced convenience and safety.

- **House Price Prediction using Machine Learning** *July 2021 - Sept 2021*
  Ensembled ML approach to predict house price **Kaggle**
  – Explored the working of Ensembled model in a regression dataset for price prediction problem of increasing residential house prices at Ames, Iowa. Complete set of 79 features are available and required to add some more using feature engineering. Worked on various complex models out of which the combination of Xtreme Gradient Boosting and Neural network model gave the best mean square error of 0.12663.

Certifications

- **Linear Regression with Time Series** *Jan. 2022*
  Python advance learning course, Kaggle **Credential**
- **Pandas** *Aug. 2021*
  Most widely used ML library, Kaggle **Credential**
- **SQL** *May. 2021*
  Structure Query Language Expert, Udemy **Credential**
- **VDC foundation** *Aug. 2017*
  Virtual Data Center Foundation, VMware
- **ITIL V3** *May. 2017*
  Information Technology Infrastructure Library, Peoplecert **Credential**

Technical Skills

- **Programming Languages** : Python(proficient), SQL(proficient), C-sharp(intermediate), ML.NET (intermediate), C/C++ (basics)
- **Operating Systems** : ESXi, Windows, Linux, MacOS
- **Tools** : Matplotlib, Scikitlearn, Keras, Tensorflow, Numpy, Weka, Tableau, Matlab, Power BI, Github, Sublime text, VS code/community, Jupyter, Google collaboratory, Anaconda, Microsoft azure ML studio, Azure synapse, Wireshark, VMware virtualization, Datacenter storage (san/nas).
- **Courses** : Machine learning(CMPT726), Deep learning(ENSC813), Data mining(CMPT741), Linear systems(ENSC801), Affective computing(CMPT724).

Volunteering Activities

- **Student Technical Staff**,IT Services, SFU *Nov. 2021 - Present*
  – Supported students, teachers and staff related to all technical and non technical issues on Campus and guided students on library related queries.
- **Community Leader**,Global Connection Program, SFU *Jan. 2022 - Present*
  – Provided support to new undergraduate students from international pathways including transfer students from Canadian post secondary institutions and incoming exchange students.
- **Global Peer Educator**,Global Student society, SFU *Aug. 2021 - Dec. 2021*
  – Global community peer educator program focus on building intercultural awareness and understanding across the SFU community, Peer educators are provided with training and professional development opportunities in the areas of leadership and intercultural competency.
- **ComSciCon 2021 Volunteer**,Communication Science Workshop, Harvard University *Apr. 2021 - Aug. 2021*
  – ComSciConCAN is Canada's first national science communication workshop for graduate students. Worked with a diverse group of people to develop a science communication article **"How Machine Learn ?"**.

Fields of Interest

- AI, Machine Learning, Data Science, Technology, Psychology, History, Space and Chess.

Strength

- Creative, Self motivating, Leadership, Strong team ethics, Punctuality and Communication.