Shubham Krishna

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EDUCATION

Eberhard Karls Universität Tübingen, *Tübingen, Germany*
Master of Science in Machine Learning *Oct. 2019 – Oct. 2021 (expected)*

IIT(ISM) Dhanbad, *Dhanbad, India*
Integrated M.Tech in Mathematics and Computing *Jul. 2013 – May. 2018*
CGPA: 9.20/10.00 (First Class with Distinction)
Class Rank: 2nd

WORK EXPERIENCE

Samsung Research, *Bangalore, India*
Senior Software Engineer, OnDevice Search *June. 2018 – Sept. 2019*

- Built Intelligent data driven models for Search Engine of Smartphones respecting user's privacy and memory limitations.
- Improved Gallery Search by integrating NLP algorithms for supporting natural language queries .
- Won the **Best Demo** award for implementing Semantic Search and Query Expansion on-device algorithms in the Samsung's Annual Technical Event, 2018.

IMT Atlantique, *Brest, France*
Research Assistant, LUSSI Department *Jan. 2018 – Apr. 2018*

- Performed a large scale study on the contributing pattern of **Wikipedia's** Online Contributors using different clustering algorithms and Principle Component Analysis.
- Used ANOVA and Student's t test for examining the statistically significant differences among different clusters discovered using different hand engineered features.

Samsung Research, *Bangalore, India*
Software Engineering Intern, Bixby Analytics *May. 2017 – Jul. 2017*

- Built and deployed a neural text classification model for **Samsung's Personal Assistant (Bixby)** for figuring out the user's intention behind swear sentences.

PUBLICATIONS

Learning Mobile App Embeddings using Multi-task Neural Network
24th International Conference on Applications of Natural Language to Information Systems ***Shubham Krishna**, Ahsaas Bajaj, et al.*

- Designed a multi-task neural architecture for prediction of app category, rating and maturity using mobile app descriptions and reviews.

RelEmb: A Relevance-based Application Embedding for Mobile App Retrieval and Categorization
20th International Conference on Computational Linguistics and Intelligent Text Processing ***Shubham Krishna**, Ahsaas Bajaj, et al.*

- Developed an Unsupervised relevance based neural word embedding model using Vanilla Autoencoders from mobile app descriptions for app recommendation and clustering.

A Clustering approach to infer Wikipedia contributor's profile
14th International Symposium on Open Collaboration ***Shubham Krishna**, Romain Billot, et al.*

- Using Hierarchical and K-medoid Clustering algorithm discovered different profiles of **Wikipedia** contributors in order to develop strategies for increasing their engagement.

ACADEMIC PROJECTS

Self Driving Car using Imitation Learning
Course: Self Driving Cars

- Trained a Convolutional Neural Network to map raw pixels of images in Open AI Gym to steering commands for an end-to-end vehicle driving agent using PyTorch.

Self Driving Car using Reinforcement Learning
Course: Self Driving Cars

- Trained a self driving car agent in Open AI Gym to learn successful control policies for driving using Deep Q Learning and Double Deep Q Learning algorithms using PyTorch.

SKILLS & OTHERS

Languages: C, C++, Python, R
Deep Learning Frameworks: PyTorch, TensorFlow, Keras
Mathematics: Linear Algebra, Probability and Statistics, Multivariate Calculus
Computer Science: Data Structures, Algorithms, Databases, Operating Systems
Interests: Deep Learning, Computer Vision, Autonomous Driving