Ankit Khare

Address: Rumford Ter., California
Phone: +1 6822528311 **Email:** ankit1khare@gmail.com
Website: aekhz.com

OBJECTIVE

To build smart products and provide valuable insights from incoming data streams based on cutting-edge technologies

SUMMARY

➡2 years of Back-end **Software Development Experience (c#, java, sql, python, data analysis, data querying, ms sql server 2010, js, linux)**
➡2 years of Experience in **A.I. / C.V. for image understanding** and captioning under academic setting (automatic feature learning/representational learning using Deep learning
➡4 months of AI Research and Development Experience in a Start-Up setting (advanced vision algorithms and scene understanding)
➡6 months of Research experience in Learning and Adaptive Robotics laboratory at UT-Arlington assisting Dr. Huber in path planning research using Deep Reinforcement Learning

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WORK EXPERIENCE

Researcher
Oct. 2019 - Feb. 2019
LEARN LAB AT UT-ARLINGTON

- Efficient heuristic formulation for path planning using Deep RL and conventional path planning algorithm: RRT

Data Scientist
Aug. 2019 - Oct. 2019
THIRD INSIGHT INC.

- Explored reasoning potential in knowledge based systems (graph based databases) to develop the next generation of algorithms for visual scene understanding using the best of deep learning and expert systems. Developed several components of the deep learning pipeline involved in automating aircraft inspection. Technologies used: Unreal engine, grid mesh objects, **Pytorch, python, C++, deep learning** life cycle management tools (Valohai)

Contract Software Developer
Oct. 2015 – Jul. 2016
SYSTEMATIX TECHNOLOGIES PVT. LTD. AND IVOLUNTEER

- Made amendments to 'Prayatna' website and introduced new features on it. Used **SQL,.NET framework, MVC, JS, Knockout JS, Agile Scrum**

Software Engineer
Apr. 2014 – Nov. 2015
NAGARRO SOFTWARE PVT. LTD.

- Developed software for **finance (accounting management system) and energy (financial ledger files and bills) domains using SQL, MS SQL server, Java, VB, C# and JS**
- One of the 3 students out of 6000 students in the joint-campus drive to clear all the 3 interview rounds to get an offer. Impressed by **my technical, quant, and analytical scores,** Nagarro organized an on-campus hiring drive in my university
- Made responsible for **multiple projects: "Ecova" and "Syntona Finac"** due to quick learning and correctness in **writing clean code using c#, SQL, and knockout JS.** Contributed as a team player in the development of both projects following **Agile (Scrum) methodology**

- Received 85% appraisal at the end of the 1st year of job with a title of the **star performer among Junior Associates** in Technology

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EDUCATION

Bachelor Degree of Computer Science, Lovely Professional University

Aug. 2010 - May 2014

Masters in Computer Science (Research Track With Focus In A.I.), The University of Texas at Arlington

Aug. 2016 - May 2019

SKILLS

Python, Pytorch, Scikit-learn, Keras, OpenCV, Tensorflow, Tensorboard, Git, Google Cloud Platform, SQL, NOSQL, C++, C, Docker, Pandas, Matplotlib, Spark, Jupyter notebook, Seaborn, Rest API, CMake, tableau

Soft Skills: Meta cognitive skills, leadership skills, excellent work ethic, strong collaborative attitude, willingness to learn & adapt, excellent ability to communicate technical ideas to technical and non-technical audience verbally & in writing

PROJECTS

SkateBoard Club Website using Java

INDIVIDUAL PROJECT

Jan. 2013

Used Java to create a web application for the university skateboard club to register students in the club and maintain their records.

COVID19- Analysis, visualization and prediction

Mar. - Apr. 2020

INDIVIDUAL PROJECT

- Utilized publicly available datasets to (i) perform exploratory data analysis and visualization of current COVID19 situation in the USA, (ii) track spread of virus and predict April month case counts. using Machine Learning algorithms: XGBOOST, Decision trees, and SVR. Utilized Python (numpy, pandas, seaborn, matplotlib and scikit-learn). Note: No domain expertise claimed for prediction purpose, analysis is performed due to passion for data science and curiosity to understand the situation through data and ML

T-Mobile Rescue (Recommender System)

Oct. 2018

T-MOBILE HACKATON (WINNER)

- **Prototyped recommender systems** based on **content filtering, collaborative filtering ad bi-direction LSTM** to provide context to T-mobile representative about customer's call, prepare them to solve their queries fasters & also to recommend products. Used Python, Pytorch, fastai, NoSQL, seaborn, matplotlib, surpriselib & spark to train 3 models to recommend best measures for billing, best troubleshooting step for hardware issue, & top 10 products

Walmart Sales Forecasting

Mar. 2020

Kaggle Practice

- Built sales forecasting models using python, pandas, seaborn, matplotlib, jupyter notebook and scikit-learn. Utilized linear regression, svm regressor, random forest regressor, and performed domain engineering to gradually observe the improvement in evaluation metrics

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PUBLICATIONS

Show, Infer and Tell: Contextual Inference for Creative Captioning

VISION + LANGUAGE AND DEEP LEARNING

- Received **Best Student Paper Award Honorable Mention**. Declared as **one of the Top 3 Papers out of more than 1000 submissions** in BMVC 2019 held at Cardiff, Wales, UK after getting selected for ORAL presentation (Acceptance Rate 4.6% with only 38 oral presentations).
- The beauty of the work lies in the way it architects the fundamental idea that humans look at the overall image and then individual pieces of it while captioning it. **Outperformed state-of-the-art Bottom-up captioner** improving significantly in every metric on MSCOCO Karpathy split

Abstracting Traversability to Plan the Path Better and Fas

PATH PLANNING AND DEEP LEARNING

- **CNNs** have never been used for finding **directional probability** from grid maps. This work demonstrates how such traversability maps can be used by RRT to plan paths faster with optimum accuracy

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Please visit my git, portfolio and YouTube for code and other details:

YouTube: https://www.youtube.com/channel/UCorR-A6259TMcsJMnQO494g

GitHub**:** https://github.com/ankit1khare

Portfolio:https://aekhz.com