

# Ankit Khare

Seattle, Washington (open to relocation)

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**Career Objective:** (i) Become a liaison between an organization and its developer communities to help derive the best value from their product(s).

## Skills

### Interpersonal Skills

Excellent verbal communication skills, cross-functional team leadership, strategic thinking, strong writing ability, proven ability to express complex ideas in simple terms, entrepreneurial mindset, collaborative attitude, strong work ethic, acuity for quickly acquiring technical knowledge and clearly expressing it to diverse audiences, excellent technical writing skills with cognizance to audience, appreciation for and attention to detail, proven success in building and nurturing strategic alliances and partnerships, deep empathy for end-users

### Software Technologies

Python, RestAPI, Git, Scikit-Learn, PyTorch, FastAI, Pandas, NumPy, SciPy, SQL

### AI/ML

Solid understanding of MLOPs, strong background in Deep Learning, understanding of challenges in operationalizing ML projects, and knowledge of end-to-end ML life-cycle in production

## Career Summary

### Head of Content and Developer Relations

*Abacus.AI (Formerly RealityEngines.AI)*

DEVELOPER ADVOCACY / CONTENT CREATION / PRODUCT DESIGN & MANAGEMENT

*May 2019 - Present*

- **Strategically plan workshop agenda and run ML workshops to:** (i) enhance community engagement with Abacus.AI products, (ii) create product awareness, (iii) teach AI/ML practitioners about AI-assisted data science, (iv) demonstrate how to use end-to-end MLOps platform, & (iv) share views on latest AI advancements and trends
- Define and execute **strategies to increase brand awareness, establish product differentiation, and increase workshop audience**
- Provide product **training to existing customers** and organize **product demos** for potential customers
- Partner with end-users, solutions architects, product managers, and research team to **identify product gaps, operationalize goals and processes as per community feedback, and lay a roadmap for next set of features and verticals**
- Create **YouTube shorts** on latest AI trends and video assets on new product features, e.g., **Recommendation Engine Pitch**
- **Publish monthly newsletter** that reaches 5500+ people
- Wrote **extensive documentation** on bringing data from external service connectors to the product. Contributed **initial How-to-use guides, API reference, Data Wrangling guides, and Use Case tutorials** for **Abacus.AI's Documentation Center**
- Created **designs for the doc-center** screens which also inspired in-product design changes for the entire product
- Drove the **Model Showcase** effort to completion during **Series B** by **training 20 Deep Learning-based models on common industry use cases**
- Design and write **in-product contextual help** to make **product more intuitive** and help executives better evaluate trained ML Models
- **Publish articles** on company culture, user-success stories, ML concepts, and AI/ML technologies
- **Reporting to the CEO and working with:** UI Developers; ML engineers; designers; solutions architects; and technical writers; to effectively and efficiently carry out developer relation processes

### Research Assistant

*UT-Arlington LEARN Lab*

IMAGE CAPTION GENERATION USING ENCODER-DECODER-BASED ARCHITECTURES

*Sep. 2017 - May 2019*

- Approached image captioning in a novel way where **human-like captions with better collocations and contextual inferences** were observed. The **state-of-the-art model** ( 1GB size) took 48 hours to train using 2 **NVIDIA P100 GPUs in parallel** on GCP outperforming existing SOAs by significant margin (3.7%)
- Developed a **deep learning-based parking tracker** prototype and published tutorials on it

### Deep Learning, Research Intern

*Third Insight Inc.*

VISUAL SCENE UNDERSTANDING

*July 2019 - Sep. 2019*

- Trained deep learning-based models on manually created raw data image crops for automatic aircraft inspection. Researched joint parsing modular computer vision systems for visual scene understanding

### Software Engineer

*Nagarro Software Pvt. Ltd.*

WEB DEVELOPMENT

*Apr. 2014 - Feb. 2016*

- Handled **data analysis** in **multiple projects: "Ecova" and "Syntona Finac"** due to quick learning and correctness in writing clean code using technologies like C#, SQL, and knockout JS. Contributed as a team player following **Agile (Scrum) methodology**
- One of the 3 out of 6000 students in joint-campus drive to get an offer. Impressed by **my technical, quant, and analytical scores**, Nagarro organized an on-campus hiring drive at my university
- Received 85% appraisal at the end of 1<sup>st</sup> year of job and recognized as **"star performer among Junior Associates"** in Technology

# Work Samples

## Workshops, Docs, Videos, & Blogs

Head of Content at Abacus.AI

- **Published articles** on: Abacus use-cases and product features; meta-learning; and deep learning (GANNs, autoencoders, etc.). Abacus.AI blog link - <https://blog.abacus.ai>
- **Live YouTube webinar** on **Learn to Train End-to-End Deep-Learning Based Predictive Models Using Abacus.AI!**
- Hosted **live YouTube webinar** on **Learn to build an end-to-end deep recommender system using Abacus.AI** in collaboration with Head of Research and team-mate Colin White
- Webinar titled: **Efficient Data Manipulation for Deep Learning Models using Abacus.AI**. Please refer to **part 1** and **part 2** of the 2 hours webinar
- Workshop on **Explanations and ML Pipelines - ML in Production**
- Workshop on **Develop Customized Neural Nets - Forecasting and Predictive Modeling**
- YouTube Live Stream on **Explainability and bias in Neural Nets**
- Contributed 80% of the content in the Doc-center: <https://abacus.ai/app/help/overview>
- Wrote **API Python Client Tutorials**: <https://abacus.ai/help/tutorials>
- Contributed to **Documentation Center's layout and design**
- Wrote **in-product contextual help** (e.g., feature docs, metric explanations, UI capabilities descriptions, etc.), data wrangling docs, and connected external services (aws, gcp, snowflake, etc.,) usage guides. **In-product contextual help sample** - **Dataset Schema UI Snapshot**

## Content Samples on YouTube

UT-Arlington

- Watch a **7-minute Video Portfolio** to know me and my creativity
- **Easy Street Parking using Computer Vision** - a comprehensive tutorial created during research assistantship in LEARN lab at UT-Arlington
- **Automatic Parking Management** - a project undertaken during computer vision course as part of master's degree
- A video on **Machine learning is Everywhere** - a video created as a part of software engineering class presentation
- YouTube **Channel Intro** - intro video for my own YouTube channel

# Publication

## Show, Infer and Tell: Contextual Inference for Creative Captioning

Best Student Paper Runner-up

VISION + LANGUAGE AND DEEP LEARNING

Presented in ORAL Session BMVC 2019

- Received **Best Student Paper Award Honourable 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). Paper can be found **here**. For further details, please check **Oral presentation video**
- 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 Faster

ICPR 2020

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

# Education

## The University of Texas at Arlington

Arlington, Tx, USA

M.S. IN COMPUTER SCIENCE (RESEARCH TRACK WITH FOCUS ON A.I.)

2016-2019

- Received **Texas Public Education Grants (TPEG)** 2018-19 for **excellent research record**
- Received directed study proposal from professor to invest maximum time in research topic due to strong knowledge of neural networks acquired mainly through MOOCs: cse231n from Stanford, Jeremy Howard's fast.ai, and Andrew Ng's deeplearning.ai

## Lovely Professional University

Punjab, India

B.S. IN COMPUTER SCIENCE

2010-2014

- Received 80% scholarship for the entire program on the basis of state-level engineering examination (M.P. P.E.T.)
- Appointed by Executive Dean to develop and test enrollment portal, 'Honor's Guru' for efficient enrollment of students in classes

# Co-Curricular Activities

- 2017 **Video Content Creator**, **Youtube videos** and blogs for motivating people towards Data Science and AI
- 2015 **First Runner-up**, 'The 6th Gurgaon running & living half marathon', Results at runizen.com, Bib Number - 1006
- 2015 **Online Certification**, 'Introduction to Nutrition and Health Part 1: Macronutrients and Overnutrition'
- 2017-19 **Leader and Active member**, Meditation camps and seminars organized by 'Dada Bhagwan Foundation'
- 2010-16 **Volunteer, Cause: Children and Education**, 560 hours of community service for 3 different NGOs
- 2016-18 **President, Graduate Student Senate and Big Howdy**, at The University of Texas at Arlington

Youtuber

Gurgaon, India

edX.org

Dallas, USA

Bhopal, India

Arlington, Tx