

Komal Agrawal

e-mail: komalagrawaluga@gmail.com
Location: Bengaluru, India

Mob : +91 7620591704
Git: komala033.github.io

OBJECTIVE	To apply mathematical understanding and skills towards solving business challenges.	
WORK EXPERIENCE	Chubb Business Services India Pvt Ltd <i>Data Scientist</i> <ul style="list-style-type: none">Part of the North America Models Monitoring Team	Feb'24 - Current
	General Aeronautics Pvt Ltd <i>Data Scientist</i> <ul style="list-style-type: none">Designed efficient algorithms from scratch for Drone traversal in fields with obstacles.Developed algorithms using Image Processing and Machine Learning for Precision Agriculture. Specifically, executed precise object detection of coconut canopies on custom dataset of stitched TIFF images annotated using LabelImg model. Also applied data augmentation techniques before extracting features through algorithms like Faster R-CNN via PyTorch Framework.Identified pest attack on plants via the Deep Learning VGG-16 classification algorithm on JPG images using TensorFlow framework.Implemented image processing techniques (on multi-spectral data) for precision agriculture to detect water-logging in paddy fields using various vegetation indices like NDWI.Led my team of 2 Data Scientists and 3 interns since March'23.	Aug'22 - Aug'23
SKILLS	Programming: Python, NumPy, Pandas, OpenCV, SciPy, Scikit-learn, SQL Framework: Keras, TensorFlow, PyTorch Visualization: Matplotlib, Seaborn, Plotly Platforms: AWS, Bitbucket, Jira, Confluence Courses : Data Science, Cryptography, Number Theory, Discrete Mathematics, Fuzzy Logic, Optimization	
EDUCATION	University of Georgia, USA <i>PhD</i> in Mathematics <i>Advisor:</i> Paul Pollack <i>Thesis:</i> On Some Problems Concerning Integer Recurring Sequences	2017 - 2022
	Birla Institute of Technology and Sciences (BITS), Pilani, India <i>Integrated MSc.</i> in Mathematics (Hons.) <i>Advisor:</i> Abhishek Banerjee (Indian Institute of Sciences, Bengaluru) <i>Thesis:</i> Spectral Spaces of Locally Finitely Generated Abelian Categories	2013 - 2017
ACADEMIC WORK EXPERIENCE	University of Georgia <i>Graduate Teaching Assistant</i> <ul style="list-style-type: none">Lecturer for MATH 1113, Precalculus (x6)Lecturer for MATH 2250, Calculus (x2)Directed Reading Program Mentor for undergraduate student (x2)	Aug '17 - Dec'21
PUBLICATIONS	Finite sets containing near-primitive roots (w/ P. Pollack) J. Number Theory 225 (2021), 360–373.	
AWARDS	University of Georgia, Teaching Assistantship University of Georgia, B.J. Ball Scholarship UGA Office of the Vice President of Research Grant Government of India, INSPIRE-SHE Scholarship	2017-2022 Summer 2020 2017-2018 2013-2017