Vedang Joshi

CONTACT
INFORMATION

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EDUCATION

University of Bristol, Bristol, UK   **Sept 2018 - Jul 2022**

Master of Engineering (MEng), Engineering Mathematics
Dissertation: A lateral line sensor based mechanistic algorithm for emergent fish schooling behaviours in multi-agent swarms, supervised by Prof. Sabine Hauert and Dr. Elliott Scott
Activities and Societies: Bristol Engineering Mathematics Society, Bristol Swimming Society, Bristol Ice Skating Society

INDUSTRY
EXPERIENCE

Boeing Defence UK, a subsidiary of The Boeing Company

Rotational Graduate Scheme   **Sept 2022 - Present**
Two-year graduate rotational scheme with 4×6 month rotations around the UK.
- Strategic Experimentation & Analysis, Fleet, UK [Sept 2023 - Present]
- Research, Development & Engineering Strategy, Bristol, UK [March 2023 - Sept 2023]
- Chinook Project Engineering, Gosport, UK [Sept 2022 - Feb 2023]

RESEARCH
EXPERIENCE

University of Cambridge, Cambridge, UK   **Jun 2021 - Sept 2021**

Research Assistant, Epidemiology and Modelling Group

- Advisors: Dr. Renata Retkute, Dr. Cerian Webb and Prof. Chris Gilligan
- Spatially-explicit stochastic dynamic epidemiological simulations on Citrus Huanglongbing.
- Modelling the spread of tree pests through road networks using stochastic simulations.

Imperial College London, London, UK   **Jun 2020 - Oct 2020**

Research Assistant, Biomathematics Group

- Advisors: Dr. Florian Klimm and Prof. Nick Jones
- Node-centralities in mitochondrial protein interaction networks for predicting gene essentiality.

TEACHING
EXPERIENCE

University of Bristol, Bristol, UK

Demonstrator (Teaching Assistant)   **Jan 2022 - May 2022**
EMAT10006 Further Computer Programming: Module designed for students to be fluent in the fundamentals of programming in Python. Taught basic software engineering and collaborative skills, so students are able to develop computer code efficiently in groups.

Demonstrator (Teaching Assistant)   **Sept 2021 - May 2022**
EMAT22220 Mathematical and Data Modelling 2: Coursework based module designed to help students to improve their ability to apply mathematical modelling and data analysis skills to the solution of problems of academia, industry and business.

Demonstrator (Teaching Assistant)   **Sept 2020 - May 2021**
EMAT10704 Discrete Mathematics 1: Teaching included number systems and arithmetic, logic and proof, sets, relations and functions. Includes graph theory, and the link between continuous and discrete mathematics. Mode of teaching split between online and face-to-face learning.

STEM OUTREACH	**University of Bristol**, Bristol, UK
	SCEEM (School of Engineering) Outreach Ambassador **Oct 2019 - Jun 2020**
	Responsible for delivering STEM workshops and presentations for students ranging from 10-13 years in schools in the Bristol area.
	Assistant, Urban Gulls Flight, Fluid and Aerodynamics Research Group **Nov 2019 - Feb 2020**
	Responsibilities included helping Cara and Anouk give talks on their research to high school students, conducting workshops and helping repair drones used in their presentations.

ACHIEVEMENTS	**The Boeing Company Cash Prize - $1000** **2023**
	The Boeing Company
	Delivering the responsibilities of a Project Engineering level 4 Technical Lead Engineer during the first 6 months of the graduate scheme.
	Academic Achievement Award **2018**
	Royal Wootton Bassett Academy
	One of 18 recipients: For outstanding achievement in A-Level results
	Award for Services to the School & Community **2018**
	Royal Wootton Bassett Academy
	Silver, Gold Award **2017, 2018**
	Duke of Edinburgh Award
	Bronze, Silver Medal **2015, 2016**
	UK Mathematics Challenge

TECHNICAL SKILLS	• **Programming Languages**: Python, MATLAB
	• **Operating Systems**: MS Windows, MacOS/iOS, Unix/Linux
	• **ML/Statistical learning frameworks [Python]**: Classification (Latent Dirichlet Allocation), Regression (Extra-trees, Sequential Forward Selection), Time series, Clustering (KNN), Feature engineering (Dynamic time warping), Natural Language Processing (NLP), Markov chains
	• **High Performance Computing (HPC)**: SLURM, Moab/Torque proficient
	• **Software**: Maple, RStudio, Wolfram Mathematica, Jupyter Notebook/Google Colab, QGIS (Open Source Geographic Information System), GitHub, MS Office
	• **Typography**: LaTeX

MEMBERSHIPS AND AFFILIATIONS	Associate Member, The Institute of Engineering and Technology, UK	**April 2023 - Present**
	Associate Member, The Institute of Mathematics and its Applications, UK	**Dec 2019 - Present**

LANGUAGES	**English**	**Native proficiency**
	Marathi	**Native proficiency**
	Hindi	**Fluent**
	French	**Professional working proficiency**

REFERENCES	**Available upon request**