

Vedang Joshi

CONTACT INFORMATION

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EDUCATION

King's College London, London, UK **Oct 2023 - Present**

Doctor of Philosophy - PhD, Computational Engineering
Research Interests: Development of theoretical and computational fluid dynamical techniques to model natural swimming flow problems. Focus on the emergence of swarming behaviours in fish.
Part-time PhD, funded by Boeing Defence UK Ltd.
Advisors: Dr. Julia Li and Prof. David Moxey

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

Master of Engineering - MEng (Hons), Engineering Mathematics
Dissertation: A lateral line sensor based mechanistic algorithm for emergent fish schooling behaviours in multi-agent swarms
Advisors: 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 Ltd, a subsidiary of The Boeing Company

Software Engineer II **Sept 2024 - Present**
Responsibilities include requirements capture, stakeholder engagement on BDUK software engineering projects.

Rotational Graduate Scheme **Sept 2022 - Sept 2024**

Two-year graduate rotational scheme with 4×6 month rotations around the UK.

- Market Intelligence, Prosperity & Economic Data, UKDSC (Secondment), Farnborough, UK [Jan 2024 - Sept 2024]
- Strategic Experimentation & Analysis, Fleet, UK [Sept 2023 - Dec 2023]
- Research, Development & Engineering Strategy, Bristol, UK [March 2023 - Aug 2023]
- TLCS-2 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. Efforts acknowledged in Modelling the spread of tree pests and pathogens in urban forests.

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

	<i>Demonstrator (Teaching Assistant)</i>	Jan 2022 - May 2022
	EMAT10006 Further Computer Programming: Fundamentals of programming in Python. Taught basic software engineering skills (OOP etc.) and collaborative programming skills.	
	<i>Demonstrator (Teaching Assistant)</i>	Sept 2021 - May 2022
	EMAT22220 Mathematical and Data Modelling 2: Coursework based module designed to apply mathematical modelling and data analysis skills to the solution of problems of academia & industry.	
	<i>Demonstrator (Teaching Assistant)</i>	Sept 2020 - May 2021
	EMAT10704 Discrete Mathematics 1: 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.	
ACHIEVEMENTS	The Boeing Company Cash Prize	2023
	<i>Research, Development & Engineering Strategy, Nov 2023</i>	
	Going above and beyond to conduct testing in support of an IRAD growth project during my second 6 months in the graduate scheme.	
	<i>TLCS-2 Project Engineering, May 2023</i>	
	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
	<i>Royal Wootton Bassett Academy</i>	
	One of 18 recipients: For outstanding achievement in A-Level results	
	Award for Services to the School & Community	2018
	<i>Royal Wootton Bassett Academy</i>	
	Bronze, Silver Medal	2015, 2016
	<i>UK Mathematics Challenge</i>	
TECHNICAL SKILLS	<ul style="list-style-type: none"> • 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, Jupyter Notebook/Google Colab, QGIS (Open Source Geographic Information System), GitHub, MS Office • Typography: L^AT_EX 	
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