

Vedang Joshi

CONTACT INFORMATION

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RESEARCH INTERESTS

Mathematical biology with applications primarily in dynamical systems and pattern formation (reaction/diffusion equations); complex networks; non-linear dynamical systems; computational neuroscience.

EDUCATION

University of Bristol, Bristol, UK **Jul 2018 - Present**
MEng, Engineering Mathematics
Activities and Societies: Bristol Engineering Mathematics Society, IceSoc

Royal Wootton Bassett Academy, Swindon, UK **Jun 2016 - Jun 2018**
A-Levels: Mathematics, Further Mathematics, French, Physics, EPQ
Activities and Societies: Senior Prefect, Sixth Form Leadership Team

PAPERS IN PREPARATION

Klimm, F., **Joshi, V.**, Jones, N.S. and Chinnery, P.F. Mitochondrial proteins tend to be central in protein interaction networks.

RESEARCH EXPERIENCE

University of Cambridge, Cambridge, UK **Jun 2021 - Sept 2021**
Research Assistant, Epidemiology and Modelling Group

- Advisors: Dr. Rich Stutt, Dr. Renata Retkute and Prof. Chris Gilligan
- Spatially-explicit stochastic dynamic epidemiological simulations on Cassava Brown Streak Disease (Uganda), Wheat Stem Rust (Ethiopia), Banana Bunchy Top (Nigeria) and Citrus Huanglongbing (USA, Australia) epidemics

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 **Sept 2020 - Present**
Demonstrator (Teaching Assistant)
EMAT10704 Discrete Mathematics 1: Teaching includes 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.

Mathematics in Education and Industry, Swindon, UK **Jun 2020 - Sept 2020**
Teaching Assistant/Mentor
Advanced Mathematics Support Programme: Tutoring Year 12 maths students preparing for STEP and MAT. Helping with online tutorials, marking papers and worksheets and giving written feedback on group mathematical modelling tasks.

Shaw Ridge Primary School, Swindon, UK

	<i>Teaching Assistant</i> Teaching assistant for a Year 3 teacher to teach numeracy and literacy; assisted with class activity preparations.	Oct 2016 - Nov 2016
STEM OUTREACH	University of Bristol , Bristol, UK <i>SCEEM (School of Engineering) Outreach Ambassador</i> The role required me to go to schools in the Bristol area and deliver STEM workshops and presentations for students ranging from 10-18 years.	Oct 2019 - Jun 2020
	<i>Assistant, Urban Gulls Flight, Fluid and Aerodynamics Research Group</i> Duties included helping Cara and Anouk give talks on their research to high school students, conducting workshops and helping repair drones used in their presentations.	Nov 2019 - Feb 2020
VOLUNTEERING	Cancer Research UK , Swindon, UK <i>Sales Assistant</i> Duties included running the till, processing stock received and getting it ready for the shop floor, keeping the shop floor tidy and tending to customer needs, with regards to any merchandise sold.	Feb 2017 - Feb 2018
	Swindon Borough Council , Swindon, UK <i>Assistant Librarian</i> Volunteering at the West Swindon Library comprised mainly of shelving and stacking books, helping people around the library with any computer issues and maintaining order in the library.	Jan 2016 - Jul 2016
ACHIEVEMENTS	Academic Achievement Award <i>Royal Wootton Bassett Academy</i> One of 18 recipients: For outstanding achievement in A-Level results	2018
	Award for Services to the School & Community <i>Royal Wootton Bassett Academy</i>	2018
	Silver, Gold Award <i>Duke of Edinburgh Award</i>	2017, 2018
	Bronze, Silver Medal <i>UK Mathematics Challenge</i>	2015, 2016
	Special prize ‘in appreciation of meritorious performance’ <i>Maharashtra State Talent Search Examination, India</i> In the top 2% of 106000 entrants; Eligible for the National Talent Search Examination	2014
COMPUTER SKILLS	<ul style="list-style-type: none"> • Packages: NumPy, SciPy, SymPy, Matplotlib (Python packages) • Languages: Python, MATLAB, limited experience in C and R • Operating Systems: MS Windows, MacOSX, Unix/Linux (Used University of Bristol’s BlueCrystal3 HPC; limited experience writing Bash scripts) • Software: Maple, RStudio, Wolfram Mathematica, MS Office • Typography: L^AT_EX 	
MEMBERSHIPS AND AFFILIATIONS	Student Member, Institute of Mathematics and it’s Applications, UK	Dec 2019 - Present

	Student Member, Australian Mathematical Society, Australia	Jul 2020 - Present
LANGUAGES	English	Native proficiency
	Marathi	Native proficiency
	Hindi	Professional working proficiency
	French	Intermediate proficiency
REFERENCES	Prof. Anthony Mulholland Head of the Department of Engineering Mathematics, University of Bristol, Merchant Venturers Building, Woodland Road, Bristol, United Kingdom BS8 1UB Tel: +44 (0)117 331 5643 Email: anthony.mulholland@bristol.ac.uk	