KHEERAN K. NAIDU

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EDUCATION

Sep 2020 – present   **University of Bristol, UK**
PhD, Theory and Algorithms Group
Supervised by Christian Konrad

Sep 2016 – Jul 2020   **University of Bristol, UK**
First Class Honours, Integrated Master's in Mathematics & Computer Science

Jun 2014 – Nov 2015   **Taylor's College Sri Hartamas, Malaysia**
2A*'s & 2A's, GCE Advanced level (Pre-U)

Aug 2013 – Jun 2014   **Lycée Albert Châtelet Saint-Pol-sur-Ternoise, France**
B2 level, DELF (language diploma by the French Ministry of Education)

PUBLISHED WORK (peer-reviewed)

STACS 2023   **Maximum Matching via Maximal Matching Queries**
Christian Konrad, Kheeran K. Naidu and Arun Steward

STACS 2023   **Improved Weighted Matching in the Sliding Window Model**
Cezar-Mihail Alexandru, Pavel Dvořák, Christian Konrad and Kheeran K. Naidu
https://arxiv.org/abs/2204.04717.

APPROX 2022   **Space Optimal Vertex Cover in Dynamic Streams**
Kheeran K. Naidu and Vihan Shah (student-only)
https://arxiv.org/abs/2209.05623.

APPROX 2021   **On Two-Pass Streaming Algorithms for Maximum Bipartite Matching**
Christian Konrad and Kheeran K. Naidu
https://arxiv.org/abs/2107.07841.

RESEARCH TALKS (not including publication talks at conferences)

Aug 2022   **Sydney Algorithms and Computing Theory Seminar, Australia** (online)

Seeun William Umboh invited me to present an overview of streaming algorithms and my recent work on Space Optimal Vertex Cover at this seminar.

Jul 2022   **IRIF Algorithms and Complexity Seminar, France**

Visited Institut de Recherche en Informatique Fondamentale (IRIF) and presented an overview of streaming algorithms and my recent work on Space Optimal Vertex Cover at their seminar. Frédéric Magniez hosted me in part with Adi Rosén.

Mar 2021   **37th British Colloquium for Theoretical Computer Science, UK** (online)

Attended and presented my then recent work on Two-Pass Streaming Matchings. This colloquium is for early-stage researchers in the UK to present their work.

FUNDING & AWARDS

Jan 2021   **SIAM Travel Award for SODA21** (from Microsoft Research & Google LLC)

Sep 2020   **EPSRC Doctoral Training Partnership Award for Computer Science**
PhD funding for full tuition fees, living and travel expenses over 3.5 years.

Apr 2018   **University of Bristol PLUS Award**

Nov 2017   **1st place in University of Bristol Accessibility Hackathon**

Sep 2016   **Barry Thomas Scholarship in Computer Science** (from University of Bristol)
A one-off payment for outstanding overseas students.

Jul 2016	**Astro Scholarship Award** (from Astro Holdings Berhad)
	Integrated Master's funding for full tuition fees and living expenses over 4 years.
Jun 2014	**Tan Sri Dato' (Dr) Loy Hean Heong Merit** (from Taylor's College)
	A-level funding for partial tuition fees over 1.5 years.

UNDERGRADUATE RESEARCH

Master's Thesis	**Probabilistic Machine Learning: Methods of Inference** Supervised by Carl Henrik Ek.
	Studied Gibbs Sampling, Variational Inference (VI) and Stochastic VI (scalable). This turned into a project at Qworky Ltd (see https://github.com/notreallyaperson/unicefWeb).
Bachelor's Project	**Mathematics of the Rubik's Cube: Finding God's Number of the Pocket Cube** Supervised by Francesco Mezzadri.
	Studied the Group structure to find mathematical optimisation that greatly sped up naive brute force methods (see https://github.com/kheeran/MATH32200-Project-Pocket-Cube).

ACADEMIC EXPERIENCE

Oct 2018 – present	**Teaching Assistant at University of Bristol, UK**
	Assisted courses, up to Master's level, such as Advanced Topics in Theoretical Computer Science, Advanced Algorithms, and Communication, Complexity and Number Theory.
Jun 2018 – Jul 2020	**President and Treasurer at Bristol University Research Society (BURS), UK**
	Spent two years building up this underperforming society. For more details, visit https://bristolresearchsoc.github.io/.

NON-ACADEMIC EXPERIENCE

Nov 2018 – present	**Co-Founder and Chief Developer at The Pangean Ltd, UK**
	Co-founded this online magazine with three others from around the world. Visit https://thepangean.com for more details.
Dec 2019 – present	**Director and CTO at Qworky Ltd, UK**
	Provided technical knowledge on Algorithms and Machine Learning, and organised an industry-based seminar. Visit https://www.facebook.com/Qworky/ for details.
Jul 2021 – Nov-2021	**Head of Technology at Ma-Kasih, Malaysia**
	Led the tech team through the high intensity development of this urgently needed platform to connect people in Malaysia who needed help during the pandemic to those who were willing to help. See the platform at https://makasih.care/.
Jul 2017 – Aug 2017	**Internship at Astro Holdings Berhad, Malaysia**
	Interned in the Product and Technology department at their headquarters during their shift to a cloud-based system and digitised workplace.

LANGUAGES

English	Native proficiency
French	Working proficiency (B2 Level, DELF)
Malay	Working proficiency