Mrinank Sharma

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@MrinankSharma

Education

2019–present **DPhil Student, CDT in Autonomous Intelligent Machines and Systems**, *Department of Statistics, University of Oxford*, Oxford, UK.
I am broadly interested in Bayesian machine learning, believing that uncertainty estimation is crucial for robust decision making. I hope to develop algorithms that allow probabilistic methods to be applied to real world problems, including respecting privacy and fairness requirements, as well as improving sample efficiency.
Supervisors: Tom Rainforth, Eric Nalisnick and Yee Whye Teh.

2015–2019 **MEng(Hons) Information and Computer Engineering**, *Pembroke College, University of Cambridge*, Cambridge, UK, *First Class with Distinction*.
Specialising in machine learning, I graduated top of my cohort (>250 students) in my final two years.

Experience

Technical

2020–present **DPhil Affiliate**, *Future of Humanity Institute*, Oxford, UK.

2020 **Volunteer**, *EpidemicForecasting.org*, Oxford, UK.
COVID-19 nonpharmaceutical intervention research.

2019 **Research Assistant**, *Computational and Biological Learning Lab, Department of Engineering*, Cambridge, UK.
Research assistant under Dr Richard Turner working on probabilistic, distributed and private machine learning algorithms.

2018 **Data Scientist Intern**, *Cambridge Consultants*, Cambridge, UK.
In the *Algorithms and Analytics group*, I contributed to the development of an end-to-end system detecting human stress levels from biological sensors.

Non-Technical

2019 **President**, *Pembroke College May Ball Committee*, Cambridge, UK.
Leading a committee of seventeen members, we aimed to organise a high quality event that also focused on its societal implications. Our event was ranked the most sustainable Cambridge May Ball in 2019, paid all workers the real living wage, made discounted tickers available to students on bursaries and raised £3,500 for charity.

2017-2018 **Director**, *LendOne*, Cambridge, UK.
LendOne, a startup in the sharing economy space, connects user to faciliate peer-to-peer borrowing and lending of commodity items. I was involved in product design and mobile application development.

2018 **Treasurer**, *Pembroke College June Event Committee*, Cambridge, UK.
Responsible for a budget exceeding £100,000. I also designed and implemented a custom ticketing system in less than a week with the ticketing officer when irredeemable flaws with our external provider were discovered.

Invited Talks

2020 NeurIPS 2020 COVID-19 Symposium.

2020 German Centre for Infection Research, University of Cologne.

2020   Africa CDC modelling group.

Recognition

• *ESPRC DPhil Scholarship* (2019) • *Charles Lamb Prize* (2019) • *Ronald Wynn Prize for Engineering* (2019, 2018) • *IET Undergraduate Grant* (2018) • *Kilby Prize for the Best Undergraduate Performance* (2018) • *Winifred Georgina Holgate Pollard Memorial Prize* (2018, 2017) • *Foundress Scholarship* (2018, 2017) • *Foundress Prize* (2017, 2016) • *College Scholarship* (2016) • *Reece Foundation Arkwright Undergraduate Scholarship* (2015)

Publications

Mrinank Sharma*, Sören Mindermann*, Jan Markus Brauner*, Gavin Leech, Anna B. Stephenson, Tomáš Gavenčiak, Jan Kulveit, Yee Whye Teh, Leonid Chindelevitch, and Yarin Gal. On the robustness of effectiveness estimation of nonpharmaceutical interventions against covid-19 transmission. *Neural Information Processing Systems*, 2020. Accepted as a **Spotlight Talk** (top 4% of submissions).

Jan Markus Brauner*, Sören Mindermann*, **Mrinank Sharma***, Anna B Stephenson, Tomáš Gavenčiak, David Johnston, Gavin Leech, John Salvatier, George Altman, Alexander John Norman, Joshua Teperowski Monrad, Tamay Besiroglu, Hong Ge, Vladimir Mikulik, Meghan A. Hartwick, Yee Whye Teh, Leonid Chindelevitch, Yarin Gal, and Jan Kulveit. The effectiveness of eight nonpharmaceutical interventions against covid-19 in 41 countries. *medRxiv*, 2020.

Mrinank Sharma*, Michael Hutchinson*, Siddharth Swaroop, Antti Honkela, and Richard E. Turner. Differentially private federated variational inference, 2019.
Note: * denotes equal contribution.

Miscellaneous

• *Oxford AI Safety Reading Group co-organiser* • *Magdalen College MCR Welfare and Charities Officer* (2020) • *Magdalen College DJ Society President* (2020) • *Magdalen College Badminton Team* • *Magdalen College Table Tennis Team Captain* (2020) • *Pembroke College AFC III XI* (*Captain 2018*) • *Pembroke College Badminton I Team* (*II Captain 2017*) • *Pembroke College Table Tennis II Team* • *Pembroke Engineering Fresher Representative* • *Socials Officer, Cambridge University Engineering Society* (2017)

I am the co-author of two, internationally selling English revision guides, sold through Amazon.