Pranay Seshadri

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Research areas: *aerothermal statistics*, *machine learning*

Professional Experience:

- **2019 - Present:** Research Fellow, Department of Mathematics, Imperial College London.
- **2018 - Present:** Group Leader, Data-Centric Engineering, The Alan Turing Institute.
- **2016 - 2019:** Research Associate, Department of Engineering, University of Cambridge.
- **2011 - 2015:** Research Assistant, Department of Engineering, University of Cambridge.
- **2013:** CFD Researcher, Design Systems Engineering, Rolls-Royce plc.

Education:

- **2016:** PhD in Computational Engineering, University of Cambridge, Cambridge, U.K.
- **2012:** MS in Aerospace Engineering, University of Maryland, College Park, U.S.A.
- **2009:** BS in Aerospace Engineering, University of Maryland, College Park, U.S.A.

Honors and awards:

- Visiting Lecturer, The Von Kármán Institute for Fluid Dynamics, Belgium, October 2018.
- Visiting Professorship, University of Cagliari, Sardinia, Italy, April 2018.
- EPSRC Knowledge Transfer Fellowship, 2016.
- Visiting Fellowship, Center for Turbulence Research, Stanford University, 2013
- Best Master's Research, A. James Clark School of Engineering, University of Maryland, 2011.
- Best Master's Research, Department of Aerospace Engineering, University of Maryland, 2011.
- AHS Design Competition, 1st Place winner (Team Excalibur), 2011.

Select journals:

1. Seshadri, P., Thorne, G., Simpson, D., Duncan, A., Parks, G., 2020. *Spatial flow-field approximation using few thermodynamic measurements I: Formulation and area averaging*. ASME Journal of Turbomachinery, 142(2). Paper Pre-print
2. Seshadri, P., Duncan, A., Simpson, D., Thorne, G., Parks, G., 2020. *Spatial flow-field approximation using few thermodynamic measurements II: Uncertainty assessments*. ASME Journal of Turbomachinery, 142(2). Paper Pre-print
3. Seshadri, P., Yuchi, S., Parks, G. T., 2019. *Dimension reduction via Gaussian ridge functions*. SIAM/ASA Journal on Uncertainty Quantification, 7(4), pp. 1301-1322. Paper Pre-print.
4. Seshadri, P., Shahpar, S., Constantine, P. G., Parks, G. T., Adams, M. 2018. *Turbomachinery active subspace performance maps*. ASME Journal of Turbomachinery, 140 (4), 041003, pp. 1-11. Paper.
5. Seshadri, P., Narayan, A., Mahadevan, S., 2017. *Effectively subsampled quadratures for least squares polynomial approximations*. SIAM/ASA Journal on Uncertainty Quantification, 5(1), pp. 1003-1023. Paper Pre-print.
6. Seshadri, P., Constantine, P. G., Iaccarino, G., Parks, G. T., 2016. *A density-matching approach for optimization under uncertainty*. Computer Methods in Applied Mechanics and Engineering, 305, pp. 562-578. Paper Pre-print.