

# ramanujan srinath

Department of Neuroscience • Center for the Neural Basis of Cognition

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| POSITIONS         | CNBC, University of Pittsburgh                                 | 2020–now |
|                   | Post-doctoral Fellow, Cohen Lab                                |          |
|                   | Mind/Brain Institute, Johns Hopkins University                 | 2019–20  |
|                   | Post-doctoral Fellow, Nielsen and Connor Labs                  |          |
|                   | Center for Neuroscience, Indian Institute of Science           | 2012–13  |
| INTERNSHIPS       | Project Assistant, Ray Lab                                     |          |
|                   | Philips Healthcare   | 2011–12  |
|                   | Software Engineer  |          |
|                   | Project Intern, Honeywell Technology Solutions Lab             | 2011     |
|                   | Industrial Trainee, Bharat Electronics Ltd.                    | 2010     |
| EDUCATION         | Intern, Manipal Dot Net Ltd.                                   | 2009–10  |
|                   | Industrial Trainee, Tata Communications Ltd.                   | 2009     |
|                   | PhD, Neuroscience, Johns Hopkins University                    | 2013–19  |
|                   | Solid Shape Representation in Area V4, Nielsen and Connor Labs |          |
|                   | Bachelor of Engineering, Manipal Institute of Technology       | 2007–11  |
| GRANTS AND AWARDS | Electronics and Communication                                  |          |
|                   | Life Sciences Research Fellowship (Finalist)                   | 2021     |
|                   | Manipal University Merit Fellowship                            | 2007–11  |
|                   | Erose Educational Infotech Merit Scholarship                   | 2002–06  |
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## PUBLICATIONS

- In Prep* (writing) **Srinath\***, Dunn-Weiss\*, Vistein\*, Daniels, Oshins, Osikpa, Garalde, and Nielsen (2021). Considerations for functional imaging in ferrets using chronic two-photon microscopy. (\* = equal contribution)
- (writing) **Srinath**, Nielsen, and Connor (2021). Rapid emergence of 3D shape based on color/luminance segregation across biological and artificial networks.
- (writing) Emonds, **Srinath**, Nielsen, Connor (2021). A Neural Basis for Rotationally Stable Vision.
- (doing follow-up experiments) **Srinath**, Emonds, Osikpa, Connor, Nielsen (2021). Segregated laminar processing of 3D shape information in V4.

*In press* **Srinath, R.**, Ruff, D.A., and Cohen, M.R. (2021b). Attention improves information flow between neuronal populations without changing the communication subspace. *BioRxiv* 2021.03.31.437940. (*in press in Current Biology*)

*Peer Reviewed* **Srinath, R.**, Emonds, A., Wang, Q., Lempel, A.A., Dunn-Weiss, E., Connor, C.E., and Nielsen, K.J. (2021). Early Emergence of Solid Shape Coding in Natural and Deep Network Vision. *Curr. Biol.* 31, 51–65.e5.

**Srinath, R.**, and Ray, S. (2014). Effect of amplitude correlations on coherence in the local field potential. *J. Neurophysiol.* 112, 741–751.

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| <b>TALKS</b>      | Simons Collaboration on the Global Brain                                       | 2021      |
|                   | Computational and Systems Neuroscience (CoSyNe)                                | 2021      |
|                   | Kanwisher lab, MIT   | 2021      |
|                   | Cohen lab, UPitt/CMU   | 2019      |
|                   | Friewald lab, Rockefeller University   | 2019      |
|                   | Tsao lab, Caltech  | 2019      |
|                   | Kiani lab, NYU   | 2019      |
|                   | Bonner lab, Johns Hopkins  | 2019      |
|                   | Yuille lab, Johns Hopkins  | 2018      |
| <b>POSTERS</b>    | ECE seminar, Manipal University  | 2011      |
|                   | SfN: Solid shape representation in biological and artificial vision            | 2019      |
|                   | Greater Baltimore SfN: Local clustering of 3D shape preference in area V4      | 2018      |
|                   | SfN: Clustering of 3D and 2D shape information in area V4                      | 2018      |
|                   | Ferret Conference: GCaMP6f nonlinearity using two-photon imaging               | 2017      |
|                   | SfN: 2D planar vs. 3D volumetric shape processing in area V4                   | 2017      |
|                   | Greater Baltimore SfN: GCaMP6f nonlinearity using two-photon imaging           | 2015      |
|                   | SfN: Characterizing GCaMP6f nonlinearity using two-photon imaging of ferret V1 | 2015      |
|                   | JHU Neuroscience Retreat   | 2014-19   |
| <b>TEACHING</b>   | Teaching Assistant   |           |
|                   | Great Discoveries in Neuroscience, Dr. Jay Baraban                             | 2016/2018 |
|                   | Visual Systems, Dr. Stuart Hendry  | 2016      |
|                   | Structure of the Nervous System, Dr. Stuart Hendry                             | 2014      |
|                   | Lectures   |           |
| <b>MENTORSHIP</b> | Neuroscience of Communication, Dr. Leah B. Helou                               | 2021      |
|                   | <i>Graduate students</i>   |           |
|                   | Cohen lab, UPitt - Christian Potter  | 2020-22   |
|                   | Connor lab, JHU - Qingyang Wang, Allen Chen, Yaqing Ye                         | 2018-20   |
|                   | <i>Undergraduate students</i>  |           |
|                   | Cohen lab, UPitt - Neha Murthy   | 2021-22   |
|                   | Connor lab, JHU - Lydia Carroll, Kevin Peng                                    | 2013-15   |

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| <b>PROFESSIONAL</b> | <i>Ad-Hoc Peer Review</i>  |         |
| <b>SERVICE</b>      | Neuron*, Journal of Neurophysiology*, Simons Foundation (* = with PI)  |         |
|                     | <i>Membership</i>  |         |
|                     | Society for Neuroscience   | 2014-20 |
|                     | American Physiological Society   | 2012-15 |
|                     | International Chair, University of Pittsburgh Postdoctoral Association | 2021-22 |
|                     | Placement officer, ECE   | 2010-11 |
|                     | Founder and convener, OpenMicMIT                                       | 2009-10 |
| <b>OUTREACH</b>     | Skype-a-Scientist  | 2020-21 |
|                     | Emily L. Harris, James Clemens High School                             |         |
|                     | Mary-Beth Kretz, Toms River High School East                           |         |
|                     | Adrienne Atkins, STEMsational Girls Club Foundation                    |         |
|                     | Dupont India Whitepaper Challenge                                      | 2005    |
|                     | Genetically Modified Foods: Gold Certificate                           |         |
| <b>OTHER</b>        | Lead actor, Fall MainStage Productions, JHU Barnstormers               | 2013-15 |
|                     | Lead actor, Assorted Productions, Dramanon, Manipal                    | 2009-11 |
|                     | National Cadet Corp  | 2001-03 |
|                     | Classical Carnatic violinist   | 2003-09 |