Ankur Sinha

General information

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github.com/sanjayankur31
Nationality: Indian.

Research Fellow at the Silver Lab,
University College London,
London, United Kingdom.

Experience

Research

- March 2020–: Research Fellow at the Silver Lab at University College London, London.
- 2020: Member of the Organising Committee for CNS*2020 Online.
- 2019–: on the Board of Directors of the Organization for Computational Neuroscience as the OCNS webmaster.
- 2018–: core team member of the NeuroFedora initiative.
- January 2011–June 2011: research intern at Indian Institute of Sciences (IISc), Bangalore.
- May 2010–July 2010: research intern at Indian Institute of Sciences (IISc), Bangalore.

Teaching

- January 2015–September 2020: visiting lecturer at the School of Physics, Engineering, and Computer Science, University of Hertfordshire.
  - Lecturing/Tutorials/Practicals/Lab work/Grading: Artificial Intelligence, Machine Learning, Databases, Contemporary issues, Algorithms and data structures.
  - Project supervision: on-campus and online undergraduate, post-graduate projects.

Volunteering

- 2008–: volunteer at the Free and Open Source Software Fedora Linux project:

  - software package maintainer; also sponsor to the package maintainers team, "proven packager" with permissions to aid other package maintainers with their tasks.
  - Join SIG team member.
- 2015–2017: seminar manager and webmaster for the UH Biocomputation group.

Industry

- June 2011–June 2012: Business Technology Analyst (BTA) at Deloitte Consulting India Pvt. Limited.
- 2011: Google Summer of Code: granted stipend by Google to work on the Fedora Medical project.

Education

October 2014–2020

- Doctor of Philosophy (PhD):
  - Structural plasticity and associative memory in balanced neural networks with spike time dependent inhibitory plasticity: computational modelling of homeostatic structural plasticity and homeostatic inhibitory synaptic plasticity to investigate mechanisms underlying the restoration of activity to deafferented neurons, and the effects of network rewiring on associative memories stored in the network.
  - Supervisor: Professor Volker Steuber.
  - Examiners: Professor Thomas Nowotny (external); Dr Reinoud Maex (internal)
  - UH Biocomputation group,
    School of Physics, Engineering, and Computer Science,
    University of Hertfordshire, Hatfield, UK.
  - Funded by a PhD scholarship provided by the University of Hertfordshire.

July 2012–June 2014:

- Master of Engineering (research) (ME):
  - Biomimetic navigation in robots: computational modelling of head direction and grid cells for use in navigation of robots running the ROS platform.
  - Supervisor: Dr Jack Wang.
  - Faculty of Engineering and Information Technology (FEIT),
    University of Technology, Sydney.

July 2007–June 2011:

- Bachelor of Engineering (BE) (GPA: 8.67):
  - Computer Science & Engineering.
  - Manipal University, India

Research

Profile

- Interests: structural, synaptic, homeostatic plasticity; excitatory-inhibitory balance; associative memory; tools and software for computational neuroscience research.
- Experience with NEST, Auryn, PyNN, and NEURON.
- Knowledge of C, C++, Java, Python, Bash, LaTeX, HTML/CSS/Javascript, GNUPlot, MPI, Linux, Git, and related software development tools.

Journal papers (pre-prints)

- **Sinha2019**

Oral presentations

- University of Hertfordshire Engineering and Computer Science Conference, 2019: **Sinha2019c**

Conference posters

- CNS 2019: **Sinha2019b**
- CNS 2019: **Sinha2019a**
- CNS 2018: **Sinha2018**
- CNS 2017: **Sinha2017**
- CNS 2015: **Sinha2015**

Conference papers

- **Sinha2014**
- **Sinha2014a**

Software for computational neuroscience

- **Jordan2019**
- **Linssen2018**
- **Peyser2017**
- **Kunkel2017**

Workshops

- July 2019: Co-organiser of the CNS*2019 student and post-doc career development workshop.

Awards and achievements

- 2019: CNS 2019 conference travel funding award.
- 2019: UH Post graduate researcher conference funding award.
- 2018: CNS 2018 conference travel funding award.
- 2018: 3 Minute Thesis (3MT) competition finalist.
- 2016: UH Post graduate researcher conference funding award.
- 2014: UH PhD scholarship.
- 2014: UTS Vice Chancellor's conference fund grant.
- 2014: UTS FEIT travel grant.

Referees Available on request.