

Ishan Deore

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A Physics graduate specializing in Computational Physics. Proficient Research Assistant with a passion for Mathematical Modelling and teaching. Currently attempting to create an open-source PDE solver.

WORK EXPERIENCE

Consultant, Dassault Systèmes | Aug 2020 – Present

- Consult the development team for BioVia, their scientific environment management software suite
- Produce prototypes and PoCs to enhance their molecular modeling and simulation functionality
- Document the prototype/PoC code for the development team

Freelance Math & Physics Tutor | Aug 2014 – Present

- Have tutored informally and professionally since high school
- Work with high-school & college learners on STEM education and college level math & physics prep work
- Help final year high-school students prepare for entrance exams and apply to universities

Field Research Assistant, University of Kentucky | Oct 2018 – Mar 2020

- Compared field data with data from computational models to find and explain discrepancies.
- Collected and filtered data from the Automated Surface Observation Station (ASOS) in Lexington, KY.
- Performed comparative tests on data from the Lexington ASOS to check for consistency with other ASOSs in the region.
- Developed macros and formulas to produce reliable statistical reviews.

Undergraduate Research Assistant, University of Cincinnati | Aug 2017 – Oct 2018

- Worked with Dr. Frank Pinski to improve current HMC models that simulate Brownian Bridges
- Attempted to find unphysical results produced by algorithms based on the Ito–Girsanov (IG) measure.
- Attempted to explain the unphysical results, boundary conditions and singularities

Undergraduate Teaching Assistant, University of Cincinnati | Jan 2014 – Aug 2017

- Checked assignments, proctored tests, and provided grades according to university standards.
 - Mentored students through office hours and one-on-one communication regarding conceptual understanding, tailoring assessments to meet expectations & exam preparation
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EDUCATION

- **Yates Fellow, Computational Physics** | University of Cincinnati | (Started 2018, on hiatus)

Accelerated Masters + PhD program guided by Prof. Richard Gass.

- **Bachelor of Science, Physics** | University of Cincinnati | 2018

3.8/4.0 cumulative GPA.

Relevant Coursework: Undergraduate physics coursework with a strong background in mathematics including linear algebra, differential equations and numerical analysis.

- **Associate of Science, Mathematics** | University of Cincinnati | 2018
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SCHOLARSHIPS, PUBLICATIONS & AWARDS

- Chosen for the Yates Fellowship, a post-graduate programme leading to a Doctorate in Computational Physics (On Hiatus) | 2018
 - Dean's List | 2016
 - Received merit-based UC Global Outreach Scholarship for maintaining 3.8 cumulative GPA and 15 hours of community service per semester | 2014 - 2018
 - I.Y. Deore and F.J. Pinski, (*submitted, pending review*) : Thermodynamic Action and the Continuous-Time Limit | 2018
 - American Association of Physics Teachers - Outstanding Learning Assistant Award | 2017
 - Third Prize - University of Cincinnati Physics Department Research Expo | 2016
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EXTRACURRICULARS & VOLUNTEER WORK

- Organizer, *Food not Bombs* (Cincinnati Chapter) | 2016 - 2019
 - Cook, *Food not Bombs* (Lexington Chapter) | 2016 - 2019
 - Trip Coordinator, *UC Mountaineering Club* | 2015 - 2018
 - Volunteer tutor, *Cincinnati Public Schools*: Volunteer tutor | 2014 - 2018
 - Community Gardener, *Cincinnati Parks* | 2014 - 2018
 - Vice President, *UC Astronomy Club* | 2016 - 2017
 - Webmaster, *UC Indian Students Association* | 2015 - 2016
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SKILLS

- Programming (Julia and Javascript)
 - Technical Writing
 - Documentation
 - Research Reporting
 - Teaching
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LANGUAGES

English, Hindi, Marathi, Russian