Nishanth Jay Kumar

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GitHub: github.com/NishanthJKumar

Education

Massachusetts Institute of Technology — Cambridge, MA
Doctor of Philosophy in Electrical Engineering and Computer Science — 2021 (expected start)

- Advised by Profs. Leslie Kaelbling and Tomás Lozano-Pérez

Brown University — Providence, RI
Sc.B. in Computer Engineering, GPA: 3.95/4.00 — 2017–2021 (expected)

- Honors and *magna cum laude* candidate with thesis expected
- Activities: Brown Space Engineering, Brown STEAM Club, Brown CS Meta-Undergrad Research Assistant (MURA)

The Indian Public School — Coimbatore, India
IB Diploma Programme, Final Score: 45/45 — 2015–2016

- Valedictorian, first student in school history to achieve a perfect IB score
- Activities: Robotics Team, MUN Team, School Newsletter, Basketball Team

Academic Experience

Brown University Department of Computer Science — Providence, RI
Undergraduate Research Assistant — 2017 - Present

- Work under Professors Stefanie Tellex, George Konidaris and Michael Littman within the bigAI initiative
- Research topics include Imitation Learning, Reinforcement Learning, Classical Planning, Model-Based Reasoning, Planning under Uncertainty, and Mixed Reality, among others

Brown University Department of Computer Science — Providence, RI
Meta Undergraduate Research Assistant (MURA) — 2020 - Present

- Responsible for cultivating and promoting Undergraduate Research within the Brown CS Department
- Hold "Research Office Hours", co-ordinate with faculty to host educational events and increase research opportunities for undergrads

Industry Experience

Uber Advanced Technologies Group — Remote
Summer Research Intern — May - August 2020

- Research Project on Active Learning under Prof. Raquel Urtasun
- Conference publication in submission to ICCV 2021. Other project details under NDA

Paragon.school — Providence, RI
Co-Founder — February 2020 - Present

- Paragon.school is a mentorship and college-consulting company for high-performance high school students

Teaching

- **Head Teaching Assistant**, Brown CS — Fall 2019
  Learning and Sequential Decision Making [Grad Level] (CSCI 2951-F)
- **Teaching Assistant** at Brown School of Engineering — Fall 2018
  Honors Introduction to Engineering (ENGN 0031)

Scholarships and Awards

- NSF Graduate Research Fellowship — 2021
- Brown Outstanding Computer Engineering Senior Award — 2021
- CRA Outstanding Undergraduate Researcher Award Finalist — 2021
- Barry M. Goldwater Scholarship — 2020
- Member of Tau Beta Pi Engineering Honors Society — 2020
- Heidelberg Laureate — 2020
- CRA Outstanding Undergraduate Researcher Award Honorable Mention — 2020
- 'Best Plenary Presenter', Ivy-League Undergrad Research Symposium (ILURS) — 2019
- Undergraduate Teaching and Research Award, Brown University — 2019
- Hack@Brown "Best Hardware Hack" — 2018
- YHack "Best Finance Hack" — 2017
- Google Global Science Fair Regional Finalist — 2015
- FIRST Tech Challenge World Championships, Special Judges' "Enabler" Award — 2015

Academic Publications

[1] **N. Kumar***, M. Fishman*, N. Danas, M. Littman, S. Tellex, and G. Konidaris, Task scoping: Building goal-specific abstractions for planning in complex domains, 2020. arXiv: 2010.08869 [cs.AI].

[2] **N. Kumar***, J. Chang*, S. Hastings, A. Gokaslan, D. Romeres, D. Jha, D. Nikovski, G. Konidaris, and S. Tellex, Learning deep parameterized skills from demonstration for re-targetable visuomotor control, 2019. arXiv: 2010.08869.

[3] **N. Kumar***, E. Rosen*, and S. Tellex, "Knowledge acquisition for robots through mixed reality head-mounted displays", 2018. [Online]. Available: http://cs.brown.edu/people/er35/publications/knowledge.pdf.

[4] A. Wandzel, Y. Oh, M. Fishman, **N. Kumar**, W. L. LS, and S. Tellex, "Multi-object search using object-oriented pomdps", in International Conference on Robotics and Automation (ICRA), IEEE, 2019, pp. 7194–7200. [Online]. Available: https://par.nsf.gov/servlets/purl/10149768.

[5] **N. Kumar***, M. Fishman, N. Danas, S. Tellex, M. Littman, and G. Konidaris, "Task scoping for efficient planning in open worlds (student abstract)", in Proceedings of the AAAI Conference on Artificial Intelligence, vol. 34, 2020, pp. 13 845–13 846. [Online]. Available: https://ojs.aaai.org//index.php/AAAI/article/view/7195.

[6] E. Rosen, **N. Kumar**, N. Gopalan, D. Ullman, G. Konidaris, and S. Tellex, "Building plannable representations with mixed reality", in Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems, 2020. [Online]. Available: https://ras.papercept.net/proceedings/IROS20/1772.pdf.