

SRUTI SRINIVASA RAGAVAN

ASSISTANT PROFESSOR, DEPARTMENT OF COMPUTER SCIENCE, IIT KANPUR

ADJUNCT PROFESSOR, DEPARTMENT OF COGNITIVE SCIENCES, IIT KANPUR

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IIT Kanpur, Kalyanpur 208016.

PROFESSIONAL PROFILE

- *Research interests:* Human-Computer Interaction (HCI), Software Engineering (SE)
- *Areas of expertise:* End-user computing, information seeking, human factors in SE.
- Over 12 years of experience building large software in academia and industry
- Over 10 years of experience learning, speaking and teaching Sanskrit at Samskrita Bharati
- Over 6 years of experience in the IT industry

EDUCATION

PhD	Oregon State University, Computer Science <i>Dissertation:</i> Variations foraging <i>Advisor:</i> Dr. Margaret M. Burnett	2019
MS	Oregon State University, Computer Science <i>Thesis:</i> Version control systems: an information foraging perspective <i>Advisor:</i> Dr. Margaret M. Burnett	2018
BS	Anna University, Computer Science and Engineering	2011

HONORS AND AWARDS

IEEE Best Paper Award International Conference on Software Maintenance and Evolution (ICSME)	2015
ACM Distinguished Paper Award International Conference on Human factors in Computing Systems	2016
IEEE Best Paper Honorable Mention International Conference on Visual Languages and Human Centered Computing (VLHCC)	2023

RESEARCH EXPERIENCE

Dissertation , Oregon State University, Corvallis OR USA Advisor: Dr. Margaret M Burnett	Aug 2019
<ul style="list-style-type: none">• Built computational models of how people navigate among versions of an artifact.	
Microsoft Research , Cambridge, UK Postdoctoral researcher , Calc Intelligence group	Nov 2019 – Aug 2022
<ul style="list-style-type: none">• Conducted studies to understand various spreadsheeting practices.• Build tools to support spreadsheet users and conducted user studies to evaluate them.• Codesign new formula-related features with Excel product teams• Investigate the use of AI for programming.	
Microsoft Research , Cambridge, UK Research intern , Calc Intelligence group	Jun 2018 – Sep 2018
<ul style="list-style-type: none">• Built a debugging / spreadsheet comprehension aid using dependency analysis.	

TEACHING EXPERIENCE

- IIT Kanpur**, Assistant Professor, Department of CSE.
- CS798H: Human Computer Interaction Winter term (Since 2022)
- IIT Kanpur**, Assistant Professor, Department of CSE.
- CS455: Introduction to Software Engineering Fall term (Since 2023)
- Oregon State University**, Teaching Assistant, Department of EECS
- CS519: Inclusive design with personas Fall 2018
- Sanskrit as a Foreign Language**, Instructor
- 100 Level course for foreign language Sanskrit course in US high schools 2022-Now

PUBLICATIONS

1. Goel, Harshit, Aayush Kumar, and **Sruti Srinivasa Ragavan**. "End-user programming is WEIRD: how, why and what to do about it". In 2023 IEEE Symposium on Visual Languages and Human-Centric Computing (VLHCC). 2023.
2. Drossos, Ian, Nick Wilson, Andy Gordon, **Sruti Srinivasa Ragavan** and Jack Williams. "FxD: A functional debugger for dysfunctional spreadsheets". In 2023 IEEE Symposium on Visual Languages and Human-Centric Computing (VLHCC). 2023. *IEEE Best Paper Honorable Mention*.
3. Goel, Harshit, Aayush Kumar, and **Sruti Srinivasa Ragavan**. "Poster: End-user Programming is WEIRD". In 2023 IEEE Symposium on Visual Languages and Human-Centric Computing (VLHCC), Poster. 2023.
4. Matin Amoozadeh, David Daniels, Aayush Kumar, Daye Nam, Michael Hilton, Amin Alipour and **Sruti Srinivasa Ragavan**. "Poster: Characterizing Students' Trust in Intelligence Code Generators". 2023 ACM Conference on International Computing Education Research (ICER). Poster. 2023.
5. **Sruti Srinivasa Ragavan**. "Using local, traditional games to foster computational thinking in schools." Computational Thinking in Schools, Pune, 2023.
6. Sarkar, Advait, **Sruti Srinivasa Ragavan**, Jack Williams, and Andrew D. Gordon. "End-user encounters with lambda abstraction in spreadsheets: Apollo's bow or Achilles' heel?." In 2022 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC), pp. 1-11. IEEE, 2022.
7. Sedhain, Abim, **Sruti Srinivasa Ragavan**, Brett McKinney, and Sandeep Kaur Kuttal. "Estimating Foraging Values and Costs in Stack Overflow." In 2022 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC), pp. 1-4. IEEE Computer Society, 2022.
8. Sarkar, Advait, Andrew D. Gordon, Carina Negreanu, Christian Poelitz, **Sruti Srinivasa Ragavan**, and Ben Zorn. "What is it like to program with artificial intelligence?." In proceedings of the Psychology of Programming Interest Group (PPIG). 2022.
9. **Sruti Srinivasa Ragavan**, Zhitao Hou, Yun Wang, Andrew D. Gordon, Haidong Zhang, and Dongmei Zhang. "Gridbook: Natural language formulas for the spreadsheet grid." In *27th international conference on intelligent user interfaces*, pp. 345-368. 2022.
10. **Srinivasa Ragavan**, **Sruti**, Advait Sarkar, and Andrew D. Gordon. "Spreadsheet comprehension: Guesswork, giving up and going back to the author." In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*, pp. 1-21. 2021.
11. Lau, Sam, **Sruti Srinivasa Ragavan**, Ken Milne, Titus Barik, and Advait Sarkar. "Tweakit: Supporting end-user programmers who transmogrify code." In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*, pp. 1-12. 2021.
12. **Srinivasa Ragavan**, **Sruti**, Mihai Codoban, David Piorkowski, Danny Dig, and Margaret Burnett. "Version control systems: An information foraging perspective." *IEEE Transactions on Software Engineering* 47, no. 8 (2019): 1644-1655.
13. **Srinivasa Ragavan**, **Sruti**, Bhargav Pandya, David Piorkowski, Charles Hill, Sandeep Kaur Kuttal, Anita Sarma, and Margaret Burnett. "PFIS-V: modeling foraging behavior in the presence of variants." In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*, pp. 6232-6244. 2017.
14. **Srinivasa Ragavan**, **Sruti**, Sandeep Kaur Kuttal, Charles Hill, Anita Sarma, David Piorkowski, and Margaret Burnett. "Foraging among an overabundance of similar variants." In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*, pp. 3509-3521. 2016.

15. Codoban, Mihai, **Sruti Srinivasa Ragavan**, Danny Dig, and Brian Bailey. "Software history under the lens: A study on why and how developers examine it." In 2015 IEEE International Conference on Software Maintenance and Evolution (ICSME), pp. 1-10. IEEE, 2015.
16. Srinivasa Ragavan, Sruti. "Variations Foraging." Oregon State University (2019).
17. Srinivasa Ragavan, Sruti. "Version control: an information foraging perspective." Oregon State University (2018).
18. Matin Amoozadeh, David Daniels, Aayush Kumar, Daye Nam, Michael Hilton, Amin Alipour and **Sruti Srinivasa Ragavan**. "Trust in Generative AI among students". Under review.

PATENTS

1. Zorn, B., Williams, J., Toronto, N., Slininger, B., Sarkar, A., Ragavan, S.S., Negreanu, C., Liu, X., Gordon, A.D., "Responding to task prompt on declarative code using language model" Unites States Patent No: MS #411616-US-NP. Filed, June 2022.
2. Zorn, B., Toronto, N., Slininger, B., Sarkar, A., Ragavan, S.S., Poelitz, C., Nouri, E., Negreanu, C., Le, V.M., Barke, S., Gordon, A.D., "Model capability extraction". United States Patent, No.: MS #411617-US-NP. Filed, Oct 2022.
3. Zorn, B., Williams, J., Toronto, N., Slininger, B., Sarkar, A., Ragavan, S.S., Negreanu, C., Liu, X., Gordon, A.D., "Generation of interactive utterances of code tasks". United States Patent No: MS #412186-US-NP. Filed, Oct 2022.
4. Sarkar, A., Ragavan, S.S., Williams, J., Drossos, I., Nelson, N., Berezovsky, I., Solodkin, L., Gordon, A., "Techniques for Formula Debugging". United States Patent No.: 413697-US-PSP (MS1-9915USP). Filed, Oct 2023.

GRANTS

1. Initiation Grant awarded by IIT Kanpur. **Rs. 25 lakhs, as single PI**. Ongoing.
2. Startup Research Grant awarded by Science and Engineering Research Board under Department of Science and Technology (DST-SERB), Government of India. **Rs. 26.8 lakhs, as single PI**. Approved.
3. Designing IKS Courses and Training Teachers on Computational Linguistics, Tarka and Science of Kalā. IKS division. **Rs. 26.5 lakhs** (as Co-PI). Commenced.

PROFESSIONAL SERVICE

Program committee, International Conference on Software Engineering (ICSE), 2024, International Conference on Program Comprehension (ERA) 2024.
Co-Chair, Innovations in Software Engineering Conference Workshops and Posters Track, 2024.
Area Chair, Innovations in Software Engineering Conference (ISEC), 2023, 2024
Reviewer: Several editions of CHI since 2019.

LANGUAGES

Tamil, English, Hindi, Sanskrit.