Rupanshu Soi

My research interests are at the intersection of programming languages and computer systems.

Education

Incoming 2022	**Stanford University.** PhD in Computer Science.
2018-22	**BITS Pilani.** B.E. in Computer Science (with Distinction). Thesis: Scaling Implicit Parallelism with Index Launches. PDF. Advisor: Elliott Slaughter, SLAC National Accelerator Laboratory.

Experience

2022	**NVIDIA Graphics.** Automated generation of error-checking code in the PTXAS parser.
2021	**SLAC National Accelerator Laboratory.** Program analysis and optimizations in the Regent compiler.
2021	**Université du Québec à Montréal.** Charting LLVM using a microservice reverse-engineering approach.
2020	**BITS Pilani.** Development of an implicitly parallel meshfree solver in Regent.

Publications

2021	**Index Launches: Scalable, Flexible Representation of Parallel Task Groups.** Paper. <u>Soi</u>, Bauer, Treichler, Papadakis, Lee, McCormick, Aiken, Slaughter. SC 21.
2020	**An Implicitly Parallel Meshfree Solver in Regent.** Paper. <u>Soi</u>, Mamidi, Slaughter, Prasun, Nemili, Deshpande. PAW-ATM 20.

Summer Schools

2021	**Programming Language Implementation Summer School.**
2021	**Programming Language Analysis and Optimizations.** By ACM India.

Awards

2021	**MITACS Globalink Research Internship.** 15,000 CAD to pursue graduate study in Canada. Declined.
2019	**BITS Pilani Merit Scholarship.** Awarded during Spring and Fall 2019.
2019	**Sir CV Raman Prize.** Department of Physics, BITS Pilani.