Research in Intelligent Software & Human Analytics (RISHA) Lab

Core Principles & Guidelines - Sridhar Chimalakonda

Welcome aboard to the RISHA Lab! We are here to aspire high, set benchmarks and give our best to achieve our aspirations towards creating a remarkable impact in research, development and society! Our research is essentially about deriving and integrating empirical and theoretical knowledge, which is also the essence of The *isha* Upanishad, and hence the name (no connections to religion whatsoever!).

Our lab consists of UG and PG (M.Tech, MS, PhD) students with strong collaborations from industry and academia. The goal is to do cutting edge work that is at the border of research and development in the broad areas of (i) Software Engineering (Primary) - http://tiny.cc/hg95cz, which consists of Empirical Research and Tool Development and (ii) Computing Research for Society, which has two sub-areas Educational technologies - http://tiny.cc/nh95cz and Human-Computer Interaction - https://bit.ly/2ZpraUq, and projects can be cross-cutting across (i) and (ii).

Every project should result either in (i) open source frameworks/platforms/tools (typically for UG2 and UG3) and/or (ii) research papers (for senior UG and PG).

The premise: Student ⇜⇝ Faculty ⇜⇝ CSE/IIT ⇜⇝ Global Research Community

▬ Core Principles

- ➳ *Desire to give your best by pushing your own boundaries with joy (not with stress) - passionate*
- ➳ *Do not give up till you achieve your goal and deliver results - determination and perseverance*
- ➳ *No compromise on quality! Intellectually we are not inferior to anyone! (not even MIT, CMU, Stanford)*
- ➳ *Never go back on commitment! No plagiarism or cheating whatsoever! - It is a crime.*

▬ What's required to succeed?

- ➳ *Technical knowledge, strong in some programming languages, version control, good coding practices and skills to develop software, open source software and most importantly to understand existing source code, make quick extensions and use of available open source frameworks to get tasks done!*
- ➳ *Stellar problem solving, programming and technical writing skills! A quick learner*
- ➳ *Grip on Literature! Yes, the ability to understand literature, existing research papers, techniques, tools, relate and most importantly when to use which techniques/tools and their trade-offs.*
- ➳ *Ability to quickly learn and apply methods, tools and techniques from areas such as Machine Learning, Natural Language Processing and so on!*
- ➳ *Writing skills! How well can you write about what we have done? You get this only through scientific reading and writing! (read one paper per day) till you reach 100 papers!*

▬ To Do

- ➳ *Weekly Status Report - https://bit.ly/2msQFWr*
- ➳ *Freedcamp (https://freedcamp.com) for all communication and tracking the progress of the project*
- ➳ *Google Classroom for general communication, and WhatsApp for technical and research projects.*
- ➳ *Technologies: C, C++, Java, Python, Javascript, Frameworks such as AngularJS, NodeJS, django and so on.*
- ➳ *Tools: Git, Github, Mendeley or Zotero (bibliography), Overleaf (LaTeX) for writing papers.*
- ➳ *Every report has to be verified through turnitin.com for plagiarism check! Enrollment key - risha2050.*
- ➳ *Research students should submit a 2-page draft (https://bit.ly/2mu2jAo) for every proposed paper with (i) research problem, novelty (ii) background, related work (iii) proposed solution (iv) expected results, future work. For advice, Tao Xie's https://bit.ly/2iPJDHZ and Tim Menzies https://bit.ly/2mohdId.*
- ➳ *No communication or submission of papers or tools to conferences/journals without faculty's consent*

▬ What is not acceptable at all?

- ➳ *Plagiarism is a crime, so not allowed! - https://bit.ly/2JvOw5U*
- ➳ *Manage as if you are working rather than actually working*
- ➳ *Working with me just for a recommendation letter/project on your CV without producing results*

I am here to help you but only if you are willing to help yourselves!

Note: At this point of time, funding for conferences has to be borne by students, but in my experience ACM, MSR, Google and several organizations can help if you do good work! Those who work in industry collaborated projects may get some funding! - *Date: September 22, 2019*