Rishab Khincha

https://rishabkhincha.github.io | http://www.mit.edu/~rkhincha

EDUCATION

BITS PILANI GOA
BE in Computer Science & MSc. in Physics
Aug '16-Jul '21 | Goa, IN
Cum. GPA: 9.24 / 10.00

AECS MAGNOLIA
Jun '14-May '16 | Bangalore, IN
CBSE : 94.70%

SJBHS
Jun '08-May '14 | Bangalore, IN
ICSE : 94.40%

COURSEWORK

COMPUTER SCIENCE
Artificial Intelligence
Machine Learning
Data Mining
Data Structures & Algorithms
Object Oriented Programming

PHYSICS
Computational Physics
Astronomy & Astrophysics
Quantum Mechanics I & II
Non-linear Dynamics
Statistical Mechanics

SKILLS

PROGRAMMING
C\C++ • Python • Java
SQL • HTML\CSS
Octave\Matlab • LaTeX

TOOLS & UTILITIES
Git • Ubuntu • tensorflow
keras • sklearn • networkx
astropy • Visual Studio • Eclipse

LANGUAGES
English • Kannada
Hindi • Marwadi

AWARDS

2020 Ingenuity Challenge, CAISS
2020 Bronze, Shell AI Hackathon
2020 RIKEN IPA
2020 GS Intern Coding Challenge
2019 MITACS GRI

EXPERIENCE

MIT MEDIA LAB | Research Affiliate
June 2020 – Present | Cambridge, USA
- Writing senior thesis under the supervision of Prof. Pattie Maes at the Fluid Interfaces group.
- Building fair and aware AI algorithms to aid healthcare and human cognition to build reliable decision making systems.

GOLDMAN SACHS | Summer Analyst
May 2020 – June 2020 | Bangalore, IN
- Worked in the Loans Servicing team to build a loan reconciliation app using Java, BPMN and eTasks.
- Received return offer to join full time based on the project performance.

APPCAIR & TCS RESEARCH | Student Researcher
Jan 2020 – Current | Goa, IN
- Building robust and interpetable models for medical imaging under the supervision of Prof. Ashwin Srinivasan and Dr. Lovekesh Vig.
- Working on multiple projects involving identifying COVID-19 from Chest X-rays and lesion classification.

WESTERN UNIVERSITY | MITACS GRI
May 2019 – July 2019 | London, CA
- Built ImageCube at the Nearby Galaxies group under the supervision of Prof. Pauline Barmby.

SELECTED PUBLICATIONS & TALKS

1. **R. Khincha**, S. Krishnan, K. Guru-Murthy, T. Dash, L. Vig, A. Srinivasan. *"Constructing and Evaluating an Explainable Model for COVID-19 Diagnosis from Chest X-rays"* . Under review.

2. U. Sarawgi, W. Zulfikar, **R. Khincha**, P. Maes. *"Why have a Unified Predictive Uncertainty? Disentangling it using Deep Split Ensembles"* . Under review. **[Preprint] [Code]**

3. **R. Khincha**, U. Sarawgi, W. Zulfikar, P. Maes. *"Robustness to Missing Features using Hierarchical Clustering with Split Neural Networks"* . Student Abstract - AAAI 2021. **[Code]**

4. U. Sarawgi, W. Zulfikar, **R. Khincha**, P. Maes. *"Uncertainty-Aware Multi-Modal Ensembling for Severity Prediction of Alzheimer's Dementia"* . ML4H, NeurIPS 2020. **[Preprint] [Code]**

5. S. Krishnan, **R. Khincha**, L. Vig, T. Dash, A. Srinivasan. *"A Case Study of Transfer of Lesion-Knowledge"* . 2nd MIL3D Workshop, MICCAI 2020. Springer LNCS. **[Paper] [Oral] [Slides]**

6. K. Mahajan, M. Sharma, L. Vig, **R. Khincha**, S. Krishnan, A. Niranjan, T. Dash, A. Srinivasan, G. Shroff. *"CovidDiagnosis: Deep Diagnosis of COVID-19 Patients using Chest X-rays"* . 2nd TIA Workshop, MICCAI 2020. Springer LNCS. **[Paper] [Oral]**

7. **R. Khincha**, S. Krishnan, R. Parveen, N. Goveas. *"ECG Signal Analysis on an Embedded Device for Sleep Apnea Detection"* . 9th International Conference on Image and Signal Processing, Morocco.