

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 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 interpretable 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". Under review. **[Code]**
4. U. Sarawgi, W. Zulfikar, **R. Khincha**, P. Maes. "Uncertainty-Aware Multi-Modal Ensembling for Severity Prediction of Alzheimer's Dementia". Under review. **[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. Niranjana, 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.