

Akash Parvatikar

PhD Candidate, Computational Biology

125, Stratford Ave., Pittsburgh

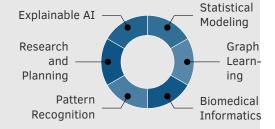
https://akashparvatikar.github.io

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in LinkedIn

Indian

Interests



Programming Skills

Python, MATLAB, R

Java, C++, C

NLTK, OpenCV

ImageJ, QPath

Personal Skills -

Communication

Problem Solving

Flexibility

Confidence

Multitasking

Professional Experience

expected **Graduate Student Researcher** Prof. S. Chakra Chennubhotla's Lab Spring '22 Investigate the intrinsic characteristics of biomedical images at

multi-scale resolutions using statistical modeling, computer vision, machine learning, and graph-based deep learning techniques.

Fall '19 Graduate Teaching Assistant University of Pittsburgh

MSC 2065 Scalable Machine Learning for Big Data Biology.

Summer '18 Research Scientist Intern Oak Ridge National Laboratory (ORNL)

Developed computational tools to analyze high-throughput, low-resolution Cryo-Electron Microscopy images of biomolecules using

RELION (Regularized Likelihood Optimization).

Summer '17 Research Scientist Intern Oak Ridge National Laboratory (ORNL)

Contributed in developing ANCA software (Anharmonic Conformational Analysis) as an extensible framework to characterize anharmonic events of complex protein fluctuations and enable a deeper

analysis of their functional relevance.

Education

Sep '18 – PhD candidate Joint Carnegie Mellon-University of Pittsburgh, Pittsburgh present Develop explainable computational pathology algorithms to under-

stand the origins of diagnostic discordance in diagnosing a broad spectrum of breast lesions from digitized histopathology images.

2016 – 2018 **MS, Information Science** University of Pittsburgh, Pittsburgh

2012 – 2016 **B.E., Electronics & Communication** R.V. College of Engineering, India

Publications

2021 Prototypical models for classifying high-risk atypical breast le-

sions

In 24^{th} International Conference on Medical Image Computing and

Computer Assisted Intervention (MICCAI)

2021 Artificial intelligence techniques for integrative structural biology

of intrinsically disordered proteins

Current Opinion in Structural Biology, 66, 216-224

2020 Modeling Histological Patterns for Differential Diagnosis of Atypi-

cal Breast Lesions

In 23^{th} International Conference on Medical Image Computing and

Computer Assisted Intervention (MICCAI)

2018 ANCA: Anharmonic Conformational Analysis of Biomolecular Sim-

ulations

Biophysical journal, 114(9), 2040-2043

Services

Jun '20 – now Member of Review Board Signal, Image and Video Processing Journal

Organizations

Sep '20 – now **Diversity and Inclusion Committee Member** University of Pittsburgh

Support department's efforts to attract and retain talented trainees and scientists from diverse socio-economic backgrounds, carrying

diverse life experiences and perspectives

Dec '20 – now **Digital Pathology Association (DPA)**Dec '17 – now **Career Mentor at Gradvine**

Mentored 50+ students to help them craft a stellar, technically cor-

rect Personal Statement for graduate applications.