

## INTERESTS

My primary research interests lie in Computer Vision, Time-series analysis and modeling, and Deep Learning.

## EDUCATION

- **Pune Institute of Computer Technology, University of Pune** Pune, India  
*Bachelor of Engineering in Information Technology; GPA: 8.67/10.0* July 2015 – June 2019
- **Apeejay School** Mumbai, India  
*Higher Secondary CBSE, Computer Science; GPA: 93.2%* July 2014 – June 2015

## EXPERIENCE

- **HSBC** Pune, India  
*Software Engineer* July 2019 - Present
  - **Data Science:** Gaining insights through Data and building applications in Global markets team
- **Tata Institute of Fundamental Research** Bangalore, India  
*Research Intern - Advisor: Prof. A. S. Vasudeva Murthy* Jan 2019 - June 2019
  - **Time-series modeling:** Modeling and factorization of time-series using statistical features in interdisciplinary fields like astronomy, finance, mathematical time-series, currency exchange [[paper](#); submitted to *International Journal of Advances in Engineering Sciences and Applied Mathematics*]
  - **Computer Vision:** Precision Agriculture - identifying diseases in farm fields using computer vision techniques on drone images with Dr. Kota Harinarayana and Dr. Vidyadhar Mudkavi [[report](#)]
  - **Structural patterns:** Analyzing the structural patterns in time-series of Onion retail prices using various mathematical techniques to conclude about the seasonality and effects caused by external factors [*in submission*]
- **Inter-University Center for Astronomy and Astrophysics** Pune, India  
*Research Intern - Advisor: Dr. Kaushal Sharma* Feb 2018 - Dec 2018
  - **Deep Learning:** Classification using 1D and 2D neural networks to classify variable star classes; CNN on magnitude and time mappings, CNN-LSTM on time-series data [[paper](#); *in submission*]
- **Asquared IoT** Pune, India  
*Research Intern - Mentor: Dr. Anand Deshpande* Aug 2018 - May 2019
  - **Research:** Audio signal processing and deep learning on the sound sensors data to qualitatively assess industrial processes
- **Promethean Energy** Mumbai, India  
*Software Engineering Intern* Nov 2017 - Jan 2018
  - **Analytics:** Flask dashboard to analyze anomalies' patterns on time-series sensor data
  - **Optimization:** Reduced MongoDB query time by 90%, improved MEAN web-app load time by 50%
- **Redesyn** Mumbai, India  
*Software Engineering Intern* May 2017 - June 2017
  - **Development:** Creation of Ruby mailer methods and activity logs for thousands of customers

## PUBLICATIONS & PROJECTS

- **Saksham Bassi\***, Atharva Gomekar\*. **Deep Learning Diagnosis of Skin Lesions**. In *International Conference on Computing, Communication and Networking Technologies, 2019*.
- **Data Pipeline & Task Management:** Developed web-app based on Flask and MySQL as database for handling company's daily tasks like employee task assigning with dynamic Kanban, managing clients and providing various employees' functions. [[source](#)]
- **MusicLSTM:** Long short-term memory models trained on various song inputs to generate similar new songs.

- **Brand hype - Sentiment Analysis:** Presents hype percentage of mobile brands based on the polarity of tweets on respective brands which helps in driving marketing decisions. [\[source\]](#)
- **Unsupervised segmentation:** Deep learning model to automatically assign labels to pixels by learning to identify objects in images and segmenting them with different colours.

## PRESENTATIONS & EVENTS

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- **HSBC Global Graduate Induction, *London*, *August 2019*:** Interactions with fellow graduates and talked about my undergrad research experience.
- **International Conference on Computing, Communication and Networking Technologies, *IIT Kanpur*, *July 2019*:** Presented research work of Deep Learning Diagnosis of Skin Lesions.
- **International Centre for Theoretical Sciences, *Bangalore*, *May 2019*:** Presentation on research work on time-series modeling using statistical features.
- **Tata Institute of Fundamental Research, *Bangalore*, *May 2019*:** Presentation on research study and computer vision algorithms for Precision Agriculture.
- **Pune Institute of Computer Technology, *Pune*, *May 2018*:** Research based seminar on Cryptography using neural networks.

## KEY SKILLS

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- **Fields:** Machine Learning, Data Science, Analytics, Software Development, Web Scraping
- **Languages:** Python, C++, Ruby, JavaScript, NodeJS, Angular