

# RUTWIK PALASKAR

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🌐 <https://github.com/RutwikP>

🌐 <https://rutwikp.github.io/>

in <http://www.linkedin.com/in/RutwikPalaskar>

## SUMMARY

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Interested in interdisciplinary research combining Machine Learning, Healthcare and Bioengineering.

## EDUCATION

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**MIT ADT University, Pune, IN**  
B.Tech. Bioengineering

2018 - Current  
8.34/10

## PUBLICATIONS

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1. **Rutwik Palaskar**, Renu Vyas, Vilas Khedekar, Sangeeta Palaskar and Pranjal Sahu, "Transfer Learning for Oral Cancer Detection using Microscopic Images", ArXiv
2. Shreyas Patil, Mihir Kulkarni, Shubham Hajare, Tanvi Parkhe, **Rutwik Palaskar**, Diksha Zutshi, Reema Shyamsunder Shukla, Sameer Desai, "Assistive Device for Hemiplegic Patients", *3D Printing*, Book Chapter

## PROJECTS

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### **Android Application Development Workshop for Startup Enthusiasts**

*iBase Electrosoft LLP, Virtual*

March 2021

- An App that ensures social distancing during the Covid 19 pandemic where recording a person's temperature and O2 saturation can be noted by just scanning a QR code. Reducing contact at the University level would help in decreasing the chances of the virus spread as temperature and O2 saturation is measured manually followed by writing down entries.

- [Shwaas](#)

### **Transfer Learning for Oral Cancer Detection using Microscopic Images**

*Research Assistant, MIT ADT University*

Oct 2020

- Worked with doctors at a hospital in Pune to collect one of the first datasets of microscopic images for oral cancer detection

- Applied current state-of-the-art models of transfer learning for image classification

- [Technical Report](#)

### **Predicting Urinary Incontinence in Elderly**

*Medhacks Hackathon, Johns Hopkins School of Medicine*

Oct 2020

- <https://devpost.com/software/sneakpeakintoleak>

- Built an assistive technology for the elderly to predict urinary incontinence

### **Collection and Utilization of Single-Use Plastics and Various Other Industrial Wastes**

*Smart India Hackathon*

Oct 2019 - Jul 2020

- Built a sustainable solid waste management system

- Developed an online B2B e-commerce service for buying and selling of single-use plastics and various types of industrial wastes

- Developed machine learning algorithms for real-time waste classification to segregate waste.

- Represented my university in this national-level hackathon

### **Advanced Arduino**

*Venture Centre, Pune*

Oct 2019

- Worked with multiple sensors and output devices

## INTERNSHIPS

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- Stony Brook University** *Part-Time Intern* Oct 2020 - Current
- Cardiac Image Segmentation for generalisation over multi-site data
  - Extending state-of-the-art models for Oral Cancer Detection to Cardiac Image Segmentation
- Prosthocentric** *Part-Time Intern* Nov 2019 - May 2020
- Currently developing hardware designs and blueprints for the start-up's patented dental products <https://prosthocentric.com>
  - Prosthocentric develops and builds automated temporomandibular jaw-relation records to aid and assist dentists in designing dentures.
  - Prosthocentric research has been awarded USA and EU patents, and Rs. 50,00,000 grant from the Government of India to develop these devices.
- Tech Smart Systems** *Data Science Intern* Mar 2019 - Apr 2019
- Trained machine learning models for classification and regression tasks on in-house housing prices dataset.
  - Applied data pre-processing and machine learning techniques on real-life housing prices data.
  - Learned about Pandas, NumPy, Matplotlib, and Sci-Kit learn libraries in Python.

## SKILLS

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**Platforms** TensorFlow, PyTorch, Keras, Arduino, Django, Flask, Web Development  
**Programming Languages** Python, Java, C, C++, HTML, CSS

## RELEVANT COURSES

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**MIT ADT** C, Java, Advanced Java, Machine Learning, Python, Data Mining and Warehousing, Microcontrollers and Bioelectronics, Electrical engineering, Electronics, Genomics, Microbiology, Bio-statistics, Genetics, Molecular Biology, Biochemistry, Biochemical Engineering

**MOOCs** Machine Learning (Andrew Ng, Coursera, Stanford University), Machine Learning A-Z: Hands-on Python and R in Data Science (Udemy), C programming for beginners - Master the C Language (Udemy), Deep Learning A-Z (Udemy), TensorFlow 2.0 (Udemy), Python Programming Master Class (Udemy), Full Stack Django Web Dev (Udemy)

## HONORS

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**Smart India Hackathon, Finalist** 2020

**Class Representative** 2019-2020  
A mediator between students and teachers and communicating student welfare issues to the department administration.

## OUTREACH

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**Fundraising Team Lead** Odser NGO, Pune

**Sambandh Project Co-ordinator** Prem Niwas Old Age Home, Pune

## SPORTS

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Represented my school at the State level in football and basketball and also our Bioengineering department at Inter-College competitions in football, basketball, and table tennis.