

# Rohit Midha

<https://rohitmidha23.github.io/>

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## EDUCATION

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- **SSN College of Engineering, Anna University** Tamil Nadu, India  
*Bachelor of Engineering in Computer Science and Engineering; GPA: 9/10.0* Aug. 2017 –
- **Maharish Vidya Mandir Senior Secondary School** Chennai, India  
*High School Diploma; AISSCE : 96.4% (482/500)* June. 2015 – July. 2017

## EXPERIENCE

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- **Indian Institute of Technology, Madras** Chennai, India  
*Research Intern* November 2019 – Present
  - **Large Scale Video Recognition:** Working on large scale real time data for object detection and number plate recognition to model traffic flow and density dynamically.
- **Sigmoid** Bangalore, India  
*Data Scientist Intern* May 2019 – July 2019
  - **Named Entity Recognition:** Worked on using Conditional Random Fields, Recurrent Neural Networks and Long Short Term Memories for Named Entity Recognition of Medical Drugs.
  - **Quantum Machine Learning:** Wrote machine learning algorithms optimized to work on a quantum computer such as quantum linear regression.
  - **Quantum Neural Networks:** Implemented a Quantum Neural Network as a Variational Circuit for real world applications such as Credit Card Fraud Detection.
- **SSN Model United Nations** Chennai, India  
*Under Secretary General, Technology and Development* Apr 2019 – Present
  - **Team:** Heading a team of 5 developers in all matters Tech related for the college Model United Nations.
  - **Website:** Built a dynamic website with Python, Flask, HTML and JavaScript using basic concepts of Bootstrap and MongoDB.
- **GeeksForGeeks** Chennai, India  
*Technical Content Writer – Algorithm blogger* Jan 2019 – Jan 2020
  - **Articles:** Written Various articles on topics ranging from basics of Python to Complex Neural Networks.
- **CodeFemme** Chennai, India  
*Founder, CTO* June 2018 – Present
  - **Te(a)chTheTeach:** Te(a)chTheTeach is a workshop series aimed at teaching PGT's about Python and it's various Libraries. Taught 100+ CBSE teachers so far.
  - **Numpy, Pandas and Neural Nets:** Guest Lecture on the topic "Numpy, Pandas and Neural Nets" at Kendra Vidyalaya, Indian Institute of Technology, Madras. 50+ teachers from across the country in attendance.

## RESEARCH AND PUBLICATIONS

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- **A Low Cost Solution to the Open Images Instance Segmentation Challenge:** Poster accepted at International Conference on Computer Vision (ICCV), 2019

## PROJECTS

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- **pharmassist:** A novel label and Android App that lets visually impaired people gain health literacy. Reads out easy instructions for pills when prescription bottle is placed on phone screen. Connected with Alexa for easy access.
- **jargone:** A web app that summarizes Terms and Conditions to keep you informed about the data companies collect from you.
- **Calimity:** An app that helps victims of a disaster find food, transport and shelter in nearby places and allows them to make SOS calls. Further, allows able users to finding NGOs that they can volunteer at and post about any amenities that they have to offer.
- **trashify:** Android Application that uses Deep Learning and TensorFlowLite to classify your trash into 3 categories. Prototype of model using Raspberry Pi in implementation phase.

- **Facial Recognition Attendance Manager:** Creating a prototype of a model attendance manager using Facial Recognition integrated with Raspberry Pi, Cameras and Firebase requests made by the student. Fully funded by SSN College of Engineering.
- **Other:** The SSNMUN Website, binarify (convert images to binary art), Indian License Plate Recognition.

## ACHIEVEMENTS

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- **Rank 2, Transfer Learning for International Crisis Response, DEEP - AiCrowd:** Jan 2020
- **Winner, AstraZeneca AI Hackathon, IIT Madras:** Jan 2020
- **Rank 1, Food Recognition Challenge, Seerave Foundation - AiCrowd:** Dec 2019
- **Rank 208 of 6000+ participants, IEEE CIS Fraud Detection Challenge:** October 2019
- **Rank 34, Open Images Instance Segmentation Challenge:** October 2019
- **Runner Up, Amazon Web Services (AWS) Challenge, AngelHack Global Virtual Hackathon:** July 2019
- **Winner, Indian Sub-Continent, AngelHack Global Virtual Hackathon:** July 2019
- **Top 8 Teams at AngelHack Bangalore:** June 2019
- **Rank 503 of 9000+ participants, Santander Customer Transaction Prediction :** April 2019
- **Runner Up, Anna University, Abacus Datathon:** March 2019
- **Runner Up, MotorQ Hackathon:** March 2019
- **Runner Up, HackerSpace, SSN College of Engineering:** Feb 2019
- **Second Runner Up, Anna University, Kurukshetra Datathon:** Feb 2019
- **Second Runner Up, IEEE Makeathon:** Jan 2019
- **Top 5 Teams, Major League Hacking, Local Hack Day:** Dec 2018
- **Finalist, International Youth Math Challenge:** Nov 2018
- **Indumathi Muthukumar Award:** June 2017

## SCHOLARSHIPS

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- **Merit Scholarship, SSN College of Engineering:** Dec 2018
- **Secure and Private AI Scholarship, Facebook:** May 2019

## OPEN SOURCE CONTRIBUTIONS

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- **FastAI:** fastai is an Open Source Package for Python that makes deep learning easier to use. Found a bug in the core code and updated the functions that generate the documents.
- **Carbon:** Carbon makes it easy to create and share beautiful images of your source code. Added support for XQuery language.
- **IBM - Qiskit:** An open-source quantum computing framework for leveraging today's quantum processors in research, education, and business developed by IBM. Helped in maintenance and broken links.
- **XanaduAI - PennyLane:** Helped in maintenance and upgrading exp function.

## CERTIFICATIONS

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- **Natural Language Processing with Tensorflow, deeplearning.ai:** July 2019
- **Neural Networks and Deep Learning, deeplearning.ai (Scholarship):** Mar 2019
- **Introduction to TensorFlow for AI, ML and DL, deeplearning.ai (Scholarship):** Mar 2019
- **Data Science Foundations - Level 2, IBM:** Jan 2019
- **Machine Learning, Stanford University (Scholarship):** Apr 2018
- **Introduction to Mathematical Thinking, Stanford University (Scholarship):** Jan 2018

## PROGRAMMING SKILLS

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- **Languages:** Python, C, C++, SQL, Java, JavaScript, Shell
- **Frameworks and Technologies:** Android Studio, React, Keras, TensorFlow, PyTorch, FastAI

## VOLUNTEERING

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- **Computational Thinking Workshop:** Organised a workshop for freshers at SSN College of Engineering to introduce computational thinking in the form of activities.
- **fn plus:** Community contributor at fn+. Helped in conducting workshops and designing learning paths.
- **Google AI Explore ML:** Organized a workshop on Introduction to ML and DL at SSN College of Engineering with the respective facilitator.
- **ACM SSN Student Chapter:** Organized a workshop on Blockchain and Hyperledger at SSN College of Engineering.

## BLOG

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I also run a blog which you can find at [rohitmidha23.github.io/blog](https://rohitmidha23.github.io/blog). It has had over 30k page views.