Siddharth Shrivastava

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Education

- **Indian Institute of Technolgy Delhi** — New Delhi, Delhi
  PhD School of Information Technology (Grades: 7.256) — *Dec. 2020 - Present*
  – Courses: Digital image analysis, Advanced computer vision, Machine learning, Computer vision, Planning and estimation for autonomous systems, Advanced Machine learning

- **National Institute of Technology Raipur** — Raipur, Chhattisgarh
  BTech Electronics and Telecommunication — *2016-2020*
  – Graduated with Honors, **95.2%** cumulative average
  – Relevant courses: Probability and stochastic process, Digital image processing, Artifical intelligence, Neural networks and fuzzy logic, Digital signal processing, Data Structures

Work Experience

- **Indian Institute of Technology Delhi** — New Delhi, Delhi
  Research Assistant — *Aug. 2020 - Nov. 2020*
  – Formulated and worked on Research problem: "Nighttime segmentation in urban roads" under the supervision of Prof. Chetan Arora, Prof. CV Jawahar, Prof. Vineeth N Balasubramanian

- **Indian Institute of Technology Bombay** — Mumbai, Maharashtra
  Research Intern — *May 2019 - July 2019*
  – Worked on Topic: "Multi organ nuclei segmentation using deep adversarial training" under the supervision of Associate Professor Dr. Amit Sethi at MeDAL, IIT Bombay.

- **Semi-Conductor Laboratory (Department of Space)** — Mohali, Punjab
  Project Trainee — *Jun 2018 - July 2018*
  – Experimented on the topic "Study and Development of Redundant Contact Anneal in RTP Tool " under the guidance of Scientist E Mr.Rajeev Rajan Kumar, SCL.

Projects

- **Control or Autism - Classification using CNN on Functional MRI** — Raipur, CG
  Major BTech Project — *Mar. 2020 - May. 2020*
  – Novel CNN Architecture, State-of-the-art (SOTA) results in Accuracy, Precision & Specificity using ABIDE RS-fMRI Data.

- **Comparative Study of DL Models for Segmentation of corpus** — Raipur, CG
  Minor BTech Project — *Aug 2019 - Nov 2019*
  – Compared CE-Net, MultiResUNet and Unet++; CE-Net Architecture gave the best results with a Dice Score of 0.9311

- **Multi-Organ Nuclei Segmentation** — Mumbai, MH
  Intern Project — *May 2019 - Jul 2019*

- – Deployed GANs for segmenting histopathology nuclei images; Cycle GANs for Image-Mask pairs & Conditional GANs for Segmentation.
- **Corpus Callosum Instance Segmentation Using Parcellation**   Raipur, CG
  BTech Project   *Oct 2019 - Dec 2019*
  - – Novel CNN Architecture, Ground Truth Generated on the Fly using Parcellation algorithm with Multi-Class Dice Score of 0.932. on instance segmentation of corpus callosum.

Publications

- **Control or Autism - Classification using CNN on Functional MRI**   Kharagpur, WB
  2020 11th IEEE ICCCNT conference   *Oct. 2020*
  - – Shrivastava, Siddharth, Upasana Mishra, Nitisha Singh, Anjali Chandra, and Shrish Verma. "Control or autism-classification using convolutional neural networks on functional mri." In 2020 11th International Conference on Computing, Communication and Networking Technologies (ICCCNT), pp. 1-6. IEEE, 2020.
- **Comparative Study of DL Models for Segmentation of Corpus Callosum**   Erode, TN
  2020 4th IEEE ICCMC conference   *Apr. 2020*
  - – Shrivastava, Siddharth, Nitisha Singh, Upasana Mishra, Anjali Chandra, and Shrish Verma. "Comparative study of deep learning models for segmentation of corpus callosum." In 2020 Fourth International Conference on Computing Methodologies and Communication (ICCMC), pp. 418-423. IEEE, 2020.

Responsibility

Atal Innovation Mission (AIM): Techical Member, Design and developed electronics projects as well as organised workshops for higher secondary school students.

Achievements

Winner at Vigyaan, a part of Technical fest Aavartan'18 at NIT Raipur (Rs. 5000)	2018
Winner at Innovation Expo'18, NIT Raipur (Rs. 25,000)	2019
Semi-Finalist in Hero Campus Challenge Season 5	2019
Quarter-Finalist in Indian Innovation Challenge Design Context, Texas Instruments	2018

Skills

Languages: Python, C/C++,

Deep Learning Frameworks: Pytorch, Keras

Applications: MatLab, GNU Octave, LATEX, MS Office, git

Cloud Services: GCP, AWS, Paperspace

Miscellaneous: Humility, critical thinker, teamwork skills