Subhrajyoti **Dasgupta**

Montréal, Canada

+1 (579) 366-4295 | subhrajyotidg@gmail.com | subhrajyotidasgupta.github.io | subhrajyotidasgupta | subhrajyoti-dasgupta

Education

Université de Montréal / Mila - Quebec AI Institute   *Montréal, Canada*

MSc Computer Science - specialization in ML   *September 2022 - Present*

- Expected Graduation: Aug, 2024
- Part of the Mila MSc in Machine Learning program. Program supervisor - Prof. Yoshua Bengio.

Amity University   *Kolkata, India*

B.Tech. in Computer Science and Engineering   *August 2016 - August 2020*

- CGPA 8.66/10.0 (*First Class with Distinction*)
- Final Year CGPA 9.38/10.0; CS Subjects CGPA 9.06/10.0

Research

- UnShadowNet: Illumination Critic Guided Contrastive Learning For Shadow Removal. [submitted] [paper]
- AudViSum: Self-Supervised Deep Reinforcement Learning for diverse Audio-Visual Summary generation. *BMVC 2021* [paper]
- Listen to the Pixels. *ICIP 2021* [paper]
- CardioGAN: An Attention-based Generative Adversarial Network for Generation of Electrocardiograms. *ICPR 2020* [paper]

Experience

Data Engineer   *Kolkata, India*

TCS - 'Analytics & Insights' Unit   *September 2020 - August 2022*

- Selected as a *Digital candidate* for top rank in global programming contest 'Codevita' (among ∼ 60k participants).
- Designed pipelines for large-scale(multi terabytes) data ingestion and maintained existing ingestion pipelines.
- SME on 'Logistic Service Provider(LSP)' ingestion pipeline.
- Innovated and implemented CI/CD feature enhancements reducing pipeline completion time by 80%.
- Trained and mentored new associates about the different running ingestion architectures, technical know-hows, etc.
- Tools used : Python 3, PySpark, Databricks, PostgreSQL, Pandas, Numpy, Gitlab, AWS, Airflow.

Visiting Researcher(Earlier - Research Intern)   *Kolkata, India*

Indian Statistical Institute - [Advisor - Prof. Ujjwal Bhattacharya]   *January 2020 - August 2022*

- Explored novel approaches for audio-visual scene understanding & summarization and illumination estimation & correction for in-the-wild scenes.
- Previously, worked on projects involving audio-visual co-segmentation and privacy-preserving synthetic ECG signal generation.
- Tools used : Tensorflow 2.0, Keras, Python 3, Pandas, Numpy, Matplotlib, Linux OS.

Deep Learning Project Trainee   *Mumbai, India*

Bhabha Atomic Research Center   *June 2019 - July 2019*

- Worked on a CTC-based Handwritten Text Recognition model for documents with Devanagari script characters with the help of Deep Learning.
- Studied and used few-shot learning and transfer learning techniques to address very limited training data.
- Involved cleaning and extraction of image data using conventional Image Processing techniques along with Data Augmentation.
- The project also helped in studying and reviewing several state-of-the-art Deep Learning architectures from scratch like EAST, FOTS, etc.
- Tools used : Keras, OpenCV, Python3, Pandas, Numpy, Matplotlib, Linux OS.

Awards & Achievements

- Recipient of UdeM Exemption(previously Bourse C.) Scholarship valued at CAD ∼10,000/year
- Merit-based scholarship from Amity University for academic excellence
- 1st Runner Up in the entire region at 'Exabyte'-2018 Programming Contest at St. Xaviers' College, Kolkata, India (among 500+ participants)
- Amazon Web Services and Udacity Machine Learning Scholarship
- Facebook AI and Udacity Secure and Private AI Challenge Scholarship

Skills & Courses

Languages/Frameworks/Tools	Java, Python, SQL, Tensorflow, Keras, OpenCV, Scikit-learn, Pandas, Numpy, PySpark, Matplotlib Git, Jupyter, Databricks
Relevant Courses	Deep Learning, Machine Learning, Data Science, Probability and Statistics, Discrete Mathematics Applied Mathematics(Linear Algebra and Calculus), Algorithms and Data Structures
Languages	English, French(beginner), Hindi, Bengali.