ANSHUMAN SINHA

CONTACT INFORMATION

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Georgia Institute of Technology
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EDUCATION

Georgia Institute of Technology, Atlanta *Jul'22-May'24*
MS CSE, College of Computing

Indian Institute of Technology Kanpur, India *Jul'15-May'20*
BT-MT Dual Degree (Thesis in Computations), Materials Science and Engineering
CGPA: 9.0/10 (MT); **8.0/10** (BT) (Proficiency Gold medal Thesis Gold medal 2nd place)

St. Michael's High School, Patna, Bihar, India *AISSCE, CBSE Board*
Grade 12: Percentage Score: **94.6%** *May'14*
Grade 10: Percentage Score: **95.0%** , CGPA: **10/10** *May'12*

ACHIEVEMENTS

- Awarded the **'Institute Proficiency medal'** and 2nd postiton for the **'Prof. Baldeva Upadhyay Gold medal 2020'** for the Best M.tech thesis at IIT Kanpur for the year 2020.
- Awarded the **Full tuition waiver** and **GTA** position at Georgia Tech for MS 2022-24.

CONFERENCES

- CCC Annual Meeting (Colorado) USA, TMS ICME 2021 (Nevada) USA, MOLTEN 2020 (South Korea), RSD (India), APM (India), NMD (India). Various topics of computational modelling.

WORK EXPERIENCE

Research project: Deep learning, CSE Georgia Tech. link
Advisor: Prof. Spencer Bryngelson *Jul'22-Present*

- Developing Deep learning architecture for mathematical operator estimations, in order to compute highly-oscillatory integrals efficiently.

ML Researcher, Georgia Tech, Atlanta, USA. link *May'21-Jul'22*

- Developed a Graph transformer network (GTN) for heterogeneous graphs used in representation learning tasks such as node classification and link prediction on TensorFlow.

Computational Engineering Researcher, UIUC (Illinois) and CSM, Denver, USA.
Supervisor : Dr. Brian G Thomas (Publication: Under draft) *Feb'21-Present*

- Developing a numerical kinetic precipitation model to predict evolution of precipitate size distribution, with the help of mathematical grouping techniques.

CTO, Co-founder, STEMrev Defcon AI, INDIA, *Mar'20-Feb'21*

- Focused on bringing the engineering expertise in this field with the help of AI and fight the pandemic with the help of auto-encoders.

PUBLICATION

Optimisation of a multi surrogate model system with the help of Genetic algorithm.
Anshuman Sinha, A K Singh. (Draft only, paper under peer-review) **link: Publication 2**

- Optimisation of the ladle furnace time with the help of a CFD based Deep learning surrogate models. Further, ladle process variables are optimised with the help of this low order DL model.

Computational study of non isothermal slag eye formation and its effects *Anshuman Sinha, Amarendra Singh.(MMTB), 2021, (Submitted)* **link: Publication1**

- A computational study of the slag-eye opening with the help of Discrete Phase modelling (DPM) coupled with random walk model for including the particle level turbulence, is performed.

RELEVANT COURSES

Courses: Machine learning, Computational epidemiology, Computational data analysis, Probability & Statistics, Non-linear Optimisation, Data structures and algorithms, Deep learning, Numerical linear algebra, Computational Turbulence.