

# Anshay Agarwal

LinkedIn: <https://www.linkedin.com/in/anshayagarwal>  
Profile: <https://anshay.github.io/>  
Projects: <https://anshay.github.io/projects>

[anshayagr@gmail.com](mailto:anshayagr@gmail.com)  
+91-8800472674

## EXPERIENCE

### Qualcomm

Senior Lead Software Engineer | Hyderabad | April 2023 – present

- Achieved a 96% reduction in Flicker correction latency for XR on GPU, decreasing it from 35ms to 1.32ms.
- Led the design of an innovative HDR flow, specifically tailored for upcoming Premium Tier chips.

### Calpion

Lead Software Engineer | Bangalore | Sep 2022 – April 2023

- Performed image segmentation on 3D CT scan images with a focus on carotid and vertebral arteries.
- Designed Convolutional Neural Network (CNN) models using deep learning methodologies to predict amino acid mutations in protein chains.
- Optimized code algorithms and implementation, achieving a speed increase of 30-50%.

### GreyScaleAI

Software Engineer | Bangalore | Feb 2021 – Sep 2022

- Developed software to integrate multiple camera types, including X-ray and RGB.
- Built a comprehensive food inspection solution using an X-ray camera, Computer Vision, Deep Learning, and OpenCV.
- Created a fully embedded user interface that manages real-time communication with hardware, software, and user inputs.
- Rectified over 35 bugs within a 4-day period, while concurrently implementing new features and conducting tests.
- Developed a client for MQTT protocol communication.
- Conducted a full code refactoring and enhanced the build process using Cmake.
- Integrated the googletest framework for testing and the glog framework for logging.

### XernAI

Founder | Aug 2018 – Jan 2021

- Developed 'Eevolve', a 2048-style Android game with multiple themes and sprites, using Flutter.
- Created 'BCBR', an Android application for Basic Course in Biomedical Research (BCBR) exam preparation.
- Engineered 'Autodub', a software capable of auto-dubbing videos in any language with lip-syncing.
- Analyzed and classified non-invasively captured brain EEG signals using a g-tec EEG-cap for Brain Computer Interfacing. Trained these signals with a deep neural network to perform brain signal-controlled actions.

### Nvidia

System Software Engineer | Pune | July 2017 – July 2018

- Enhanced the Tegra SW platform by developing new features, debugging, and resolving issues within the Camera Imaging pipeline, resulting in an overall improvement of the Imaging software stack.
- Delivered over 10 critical bug fixes in the camera stack, including lens shading and Cuda Histogram, ensuring timely product delivery.

### DRDO

Scientist | Dehradun | August 2013 – June 2015

- Implemented solutions to minimize vignetting caused by lens shading in Thermal Imagers (LREO and MREO), enhancing the performance of night vision cameras used in military applications.
- Improved image quality by addressing issues related to bore-sighting, noise, and poor focus in thermal images captured with LREO and MREO.
- Engineered and built a Raspberry Pi-based controller for remote operation of the Thermal Imager. This in-house innovation eliminated the need for external procurement, resulting in cost savings and reduced development time.

## North Delhi Power Limited (NDPL)

Intern | Delhi | May 2011 – July 2011

- Engaged in the operation and maintenance of power grids, gaining comprehensive knowledge about grid components including towers, cables, SCADA panels, and smart grids. This experience has provided a deep understanding of grid infrastructure and its management.

## SKILLS

C++, Python, DeepLearning, Flutter, CT, MRI, DICOM, 3D Modeling (Blender), CMake, OpenCV, PostgreSQL, Qt, Arduino, Git, CVAT

## EDUCATION

**Masters Of Technology** Computer Technology, Indian Institute of Technology Delhi (IIT Delhi) 2017

- **Dissertation:** Conducted an in-depth study on “Thermal Video Stabilization”, focusing on the stabilization of videos captured through night vision cameras.
- **Project on Brain Computer Interfacing** that utilized Motor Imagery signals captured via EEG to control cursor movement on the screen. This innovative approach demonstrated the potential of brain-computer interfaces in real-world applications.

**Bachelors Of Technology** Electrical Engineering, Indian Institute of Technology Mandi (IIT Mandi) 2013

- **Thesis:** Conducted comprehensive research on an “Automobile Collision Prevention System”, focusing on enhancing vehicle safety.
- **Founding Member, Robotics Section, IIT:** Pioneered the establishment of the Robotics Section at IIT, leading the construction of the first robot at IIT Mandi from the ground up.
- **Member, Electronics Section:** Actively participated in the Electronics Section, contributing to various projects and discussions.
- **Scholarship:** Awarded the Merit Cum Means Scholarship in recognition of academic excellence.

## CERTIFICATES / SPECIALIZATIONS

**Entrepreneurship Specialization, The Wharton School (2021-2022)**

Completed a comprehensive five-course series on entrepreneurship, covering the inception, design, organization, and management of new enterprises. The curriculum was designed to guide learners from opportunity identification through launch, growth, financing, and profitability.

**Deep Learning Specialization, Deeplearning.ai (2018-2019)**

Acquired foundational knowledge of Deep Learning, including an understanding of Convolutional Networks, Recurrent Neural Networks (RNNs), Long Short-Term Memory (LSTM), and more.

**TensorFlow Developer Professional Certificate, Deeplearning.ai (2019-2020)**

Gained proficiency in TensorFlow, with a focus on understanding loss functions, optimizers, convolutions, LSTM, and more.

## ACTIVITIES

- Led and organized a workshop on Mobile Autonomous Robotics at IIT Mandi.
- Participated in a workshop on Swarm Robotics at Thapar University.
- Coordinated multiple events at Cognizance 2009 at IIT Roorkee.

## ACCOMPLISHMENTS

- Achieved a GRE score of 321/340, with a perfect score of 170/170 in the Quantitative section.
- Secured an IIT JEE rank of 3547 among 0.4 Million students.
- Attained a GATE rank of 423 (99.998 percentile) in Electronics and Communication.
- Ranked among the top 0.1% of students in India in the XII board exams (AISSCE), scoring 100% in Mathematics and 99% in Computer Science.

## PSYCHOMETRIC

- **MBTI** Personality Type: INTJ-T, characterized as The Architect, Analyst, and Constant Improvement.
- **Enneagram** Type: 6w5, known as “The Guardian = Loyalist wing Investigator”.
- **VIA** Character Strengths: Creativity (1), Honesty (2), Perspective (3), Good Judgment (4), and Curiosity (5).