

EDUCATION

University of VictoriaM.Sc Computer Science *GPA: 8.0/9.0*

Victoria, Canada

Sep 2017 - Present

Indian Institute of Technology, DhanbadB.Tech Electronics and Communication Engineering *GPA: 8.68/10.0*

Dhanbad, India

Jul 2011 - May 2015

EMPLOYMENT

Motion Metrics International*Machine Learning Engineer Intern*

Vancouver, Canada

May 2019 - Aug 2019

- Designed and Developed an end-to-end Deep-Learning based computer vision pipeline to remove shadows from images caused due to varying illumination conditions. The Shadow Removal algorithm I developed has improved the company's existing algorithms performance by 95% and is ready for deployment in production.
- Worked with an experienced team of Senior Software Engineers that followed industry proven disciplined agile methodology for development.
- Project management using tools like JIRA to create, assign and submit tasks, manage task descriptions and task timelines.
- *Stack: Python, PyTorch, Tensorflow, OpenCV, Docker*

Coal India Limited*Management Trainee*

Sambalpur, India

Jul 2015 - Jul 2017

- Administration of the database server and part of a team that involved in the design of physical database schema, data modeling, and performance tuning. I was part of a research team working on building an Explosive Recommender System, that helps optimize blasting operation to attain production efficiency in coal mines.

TECHNICAL SKILLS

Programming Languages:	Proficient in Python, Javascript, SQL, C
Machine Learning:	PyTorch, Tensorflow, Keras, Numpy, Pandas, Docker, Amazon Web Services
Full Stack Web Development:	Python, Flask, Javascript, PostgreSQL, Heroku
Methodologies:	Agile/Scrum, SDLC, Object-Oriented Analysis and Design(OOAD)
Operating Systems:	Ubuntu, Mac OSX, Windows

PROJECTS

Flack - Real Time Online Messenger Application - Project Demo

Sep 2019 - Oct 2019

- Developed an online messaging service using Flask, similar in spirit to Slack. Users can sign in and create or join an existing chatroom, and once a channel is selected, users can communicate in real-time, with the help of WebSockets. The service is deployed on Heroku. *Stack: Python, Flask, Javascript, MySQL, Heroku*

Hand Segmentation from Depth Images - Project Link

Sep 2017 - Oct 2018

- Developed and open-sourced a large scale dataset containing 200k annotated depth images and deep-learning architectures for hand segmentation. Used SVM based color segmentation techniques to create automatic annotations. Our final model achieves an accuracy of 88% with an inference time of 5 milliseconds/frame on a Nvidia GTX 980 Ti GPU. *Stack: Python, Tensorflow, Keras, OpenCV*

Facial Keypoint detection system - Project Demo

Jul 2018 - Aug 2018

- Developed a Facial keypoint detection system by training a neural network on Youtube Faces dataset. The system detects the face and identifies 68 facial keypoints. *Stack: Python, PyTorch, OpenCV*

Movie Recommender System

Jan 2018 - Apr 2018

- Studied and implemented algorithms to predict user ratings for a new movie based on his past ratings for other films using the MovieLens dataset, which contains 100K ratings given by 671 users for about 9,125 movies. Evaluated different algorithms on this dataset using root mean square error (RMSE) as a measure and achieved 0.91 on our method. *Stack: Python, Keras, Numpy, Pandas*

AWARDS

Fellowship, University of Victoria

Awarded for the first year of my masters program.

Sep 2017

Merit Cum Means Scholarship, IIT Dhanbad

Awarded for 4 consecutive years for excellent academic performance.

Aug 2011