

GAGANDEEP SINGH

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To the Hiring Manager,

Subject: Application for the position of Transportation Engineer

I am working as a Management Trainee with Canadian National Railways (CN) since July 2018 and I have been exposed to Transportation and Engineering departments of the company. I am a Management Conductor and Engineering Foreman qualified as per the Canadian Rail Operating Rules (CROR). I worked as a Conductor on trains, and I assisted trainmasters in Toronto Macmillan Yard for winter 2019. Currently, I am shadowing supervisors in Signals and Communication, Bridges and Structures, and Track. I have gained significant exposure to CN's field operations, rules and regulations for the past several months. I believe that this experience helped me understand railroad operations from the grass-root level considering the perspective of both safety and efficiency.

Regarding my academics, I have a Master of Applied Science (MAsc.) degree in Transportation Planning from University of Toronto, Canada. I submitted master's thesis on Logistics Sprawl: Spatial Patterns and Characteristics of new Warehousing Establishments in the Greater Toronto and Hamilton Area (GTHA). As part of this research work a technical report has been submitted to Metrolinx on the phenomenon of logistics sprawl in the GTHA. Also, I was awarded the Volvo Research and Educational Foundations (VREF) travel grant for a research visit to MetroFreight, University of Southern California where I developed a model to explain the factors affecting location choices of warehouses over time in the GTHA region. All these experiences helped me further advance my analytical skills including use of GIS, and research and problem-solving skills in logistics and warehousing industry.

I completed Bachelor degree in Civil Engineering from Indian Institute of Technology (IIT) Guwahati, India and I submitted undergraduate thesis on Mode Choice Behaviour of Elderly Travelers: a case of Shimla, Trondheim, and Fuqing. The thesis was carried out in collaboration with Dr. Tanu Priya Uteng (then PhD student at Norwegian University of Science and Technology (NTNU), Norway). I had the sole responsibility of collecting and analyzing data for Shimla city. I led of small team of 5 people for collecting data through surveys, and this helped me develop strong project management, communication and leadership skills.

My other experiences include working at University of Technology Sydney, Australia and University of Victoria, Canada on a project to build a proof-of-concept model based on Sydney's transportation network that allows forecasting of mode choice shifts given future transportation network change scenarios. This internship helped me enhance my skills related to application of GIS to transportation, and transportation planning. Also, I worked for Australian National University on a project on Experimental and Collaborative Governance for Urban Sustainability and Resilience in India and Canada. This project helped me develop skills for analyzing policy issues related to climate change.

Apart from strong analytical skills, I believe my academics and experiences gained through job and internships makes me an ideal fit for this position. I have attached my resume for further details. I will be pleased to provide additional information if needed. I look forward to hearing from you.

Thanks, and Regards

Gagandeep Singh, MAsc. (Transportation Engineering)

EDUCATION

University of Toronto, Canada, Master of Applied Science in Transportation Planning
2015 Fall - 2017 Fall, G.P.A. = 3.65/4

Union Public Service Commission, India, Civil Services Examination preparation
June 2011 – August 2014

Studied subjects like history and geography of the world and society, governance, polity, social justice, international relations, economic development, environment, ethics.

Indian Institute of Technology Guwahati, India, Bachelor of Technology in Civil Engineering
Batch 2007 - 2011, Cumulative Percentage Index = 7.73/10

SKILLS

ArcGIS, Biogeme, Emme, Maptitude, Microsoft Office,

PROJECTS

Department of Civil Engineering, University of Toronto

Master Thesis, September 2016 – December 2017

- Project: Logistics Sprawl - Investigating spatial patterns and characteristics of new warehousing establishments in the Greater Toronto and Hamilton Area (GTHA)
- Technical report submitted to Metrolinx on the phenomenon of Logistics Sprawl in the GTHA

Department of Civil Engineering, IIT Guwahati

Undergraduate Thesis, August 2010 – April 2011

- Project: Mode Choice Behavior of Elderly Travelers: A Case of Shimla, Trondheim and Fuqing
- Estimated a Multinomial Logit Model for mode choice using revealed preference survey data
- The project was carried out in collaboration with Dr. TanuPriya Uteng (then PhD student at Norwegian University of Science and Technology, Norway)

EXPERIENCE/ INTERNSHIPS

Canadian National Railways

Management Trainee, July 2018 – till date

- Qualified as Management Conductor and Engineering Foreman according to the Canadian Rail Operating Rules (CROR)
- Worked as a conductor on trains and exposed to various operations in building trains, and assisting trainmasters in the yard

MetroFreight, University of Southern California

Visiting Researcher, February 2018

- Developed a count data model to explain factors affecting location changes of warehousing establishments over time in the Greater Toronto and Hamilton Area

Department of Civil Engineering, University of Toronto

Teaching Assistant, September 2015 – April 2017

- Worked as a Teaching Assistant for the course Transport I – Introduction to Urban Transportation Systems and Transport – II Performance
- Coordinated with instructors to ensure the effective delivery of instructional materials and administered weekly tutorials, assignments and exams for the courses

School of Regulation and Global Governance, Australian National University

Researcher, September 2016 – April 2017

- Project: Experimental and Collaborative Governance for Urban Sustainability and Resilience
- Prepared a document on dominant governance instruments for urban mitigation and adaptation for the city of Mumbai and India, and for the City of Vancouver and Canada

University of Technology Sydney, Australia and University of Victoria, Canada

Internee, May 2010 – July 2010

- Developed an automated program for web queries using iMacros to collect trip data for city rail and car to capture existing transportation network of Sydney
- Geocoded origin and destination points, and made network paths and travel time maps for road and rail travel in Sydney using Maptitude for the project database

iTrans, Technology Business Incubation Unit, IIT Delhi

Internee, May 2009 – June 2009

- Studied parking characteristics in the commercial parking of south Delhi for the development of a parking management model
- Assessed traffic management measures and estimated strategies to meet the demand of parking space for two-wheelers, four-wheelers and light motor vehicles

WORKSHOPS/ CONFERENCES

TRB 95th Annual Meeting, Washington DC, USA

Student Participant, 10th -14th January 2016

- Exposed to issues like Freight Transportation, Transportation Economics, Aviation etc.

Alliance Francaise de Delhi, New Delhi, India

Student, August 2014 – December 2014

- Attended French classes for the beginner's level covering 54 hours of the course

GEOIDE, University of Calgary, Canada

Summer School Trainee, 8th -13th June 2010

- Completed a training of one week on the theme of Public Information for Geomatics

Urban Mobility India 2010, New Delhi, India

Urban Habitats Forum Fellow, 3rd -5th December 2010

- Exposed to issues like sustainable urban transport, non-motorized transport, traffic engineering and management in context to developing countries like India

SCHOLARSHIPS/ GRANTS

- Awarded Study Visit Grant by Volvo Research and Educational Foundations (VREF) to visit MetroFreight, University of Southern California
- Awarded Graduate Funding by the Dept. of Civil Engineering, University of Toronto for pursuing M.A.Sc. degree
- Awarded merit-cum-means scholarship by the Ministry of Minority Affairs, Govt. of India for pursuing B.Tech. degree
- Awarded financial support by the Ministry of Minority Affairs, Govt. of India for clearing the UPSC preliminary examination

POSITIONS OF RESPONSIBILITY

Placement Cell, IIT Guwahati

Placement Representative, Dept. of Civil Engineering, July 2010 – April 2011

- Responsibilities included communicating with industrial organizations to assure campus placement for batch of 40 students
- Coordinated with batch mates and Placement Cell to ensure timely scheduling and proper logistics for placement activities

Alcheringa 2009, Cultural Festival at IIT Guwahati

Marketing Team Member, July 2008 – January 2009

- Responsibilities included negotiating with corporate houses to conceptualize and explore the marketing possibilities for the festival
- Coordinated with Design and Events team to provide maximum deliverables to the sponsors