# **Disha Das**

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#### **EDUCATION:**

Georgia Institute of Technology, M.S. in Computer Science (Computational Perception & Robotics)

08/2019 to 12/2020

- Master's Project: Spider Robot Motion Planning Optimization using Factor Graphs
- 3.64/4.00 Cumulative GPA

Veer Surendra Sai Institute of Technology, India, B.Tech in Electronics & Telecommunication

07/2012 to 07/2016

- Thesis: Enhancing Image Contrast- A Novel Approach Incorporating 2D Histogram Equalization
- 8.13/10.00 Cumulative GPA

#### PROFESSIONAL EXPERIENCE:

Upwork Freelancer, India

10/2023 to Present

Worked on multiple projects involving LLMs, Streamlit Applications, Data Engineering pipelines in Azure

#### Business Analyst, Altum Solutions, Dallas, TX

01/2022 to 10/2023

- Developed Dashboards, Queries using WIQL and maintained Boards on Azure DevOps and PowerBI
- Migrated data and dashboards from Azure DevOps to PowerBI using Azure-Devops API for developing CAPEX reports

Tools: Python, Azure CLI, Azure-Devops SDK, PowerBI Desktop, Azure DevOps

### Robotics Research Volunteer, Georgia Institute of Technology, Atlanta GA

05/2020 - 12/2020

School of Interactive Computing - Prof. Frank Dellaert

- Contributed extensively to <a href="GTDynamics">GTDynamics</a>, a C++ library that allows the user to express the full kinodynamics constraints of an arbitrary robot configuration on a factor graph.
- Designed and implemented motion planning of Octopod configuration using Factor Graphs
- Worked on Factor Graphs, GTSAM, Simultaneous State Estimation and Optimal Control

## Graduate Teaching Assistant, Georgia Institute of Technology, Atlanta GA

05/2020 - 12/2020

- CS6476: Computer Vision, Dr Devi Parikh
- CS4001: Computing & Society

#### Business Technology Analyst, Deloitte Consulting India Pvt Ltd, India

11/2016 to 05/2018

- As FP&A Tester, worked on testing financial reports and input forms using SAP BPC tool and MS Excel
- Developed Anaplan model for Retail Planning, built modules and dashboards for buyers for Retail planning

Tools: SAP BPC 10.1, MS Excel Add-In (EPM), MS PowerPoint

#### **RESEARCH PROJECTS:**

#### Ultra-fast Seam Carving for Real Time Object Detection and Removal (Read more)

08/2019 to 12/2019

- IEEE International Conference on Computational Photography(ICCP)(2020) Poster
- Introduced hardware and algorithmic speedups to modify the Seam Carving algorithm so that it can be run to remove objects from videos in real time.

## Evaluation of 3D Object Detection for Cars by improving existing frameworks (Read more)

01/2020 to 04/2020

• Compared and improved upon two 3D object detection DL frameworks, PointRCNN and Frustum ConvNet on the Kitti dataset

#### Comparing the performance of Generative Models for Vector Drawing generation (Read more)

01/2020 to 04/2020

 Experimented with DCGAN, Sketch-pix2seq, VAE-CNN on vector drawing generation and compared performance with our own VAE based model

#### Obstacle Avoidance for Kinematically Redundant Mobile Manipulators (Read more)

01/2020 to 05/2020

Implemented obstacle avoidance algorithms under different scenarios using GTSAM library for a 6-link mobile manipulator arm

### Human Acceptance of Unpredictable Behaviors in Fully Driverless Ride-Hailing Services (Read more)

08/2020 to 12/2020

Survey based project comparing the leniency shown to errors caused by human drivers vs AVs under different scenarios

#### SKILLS:

- Strong command of Python, C++ and MATLAB
- Proficiency in PyTorch, OpenCV, ROS
- State Estimation, SLAM, Optimal Control
- NeRF, 3D and 2D Computer Vision
- LLM Frameworks, Langchain, Openai API
- Data Mining, Data Pipeline building