Chandan Kumar

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CONTACT INFORMATION

- **Email:** chandan1002@gmail.com
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- **GitHub:** chandan1002

EDUCATION

IOWA STATE UNIVERSITY, USA

- **Degree:** Doctor of Philosophy (Ph.D.), Computer Science (Focus: Deep Learning, Computer Vision)
- **Advisor:** Dr. Ali Jannesari and Dr. Matthew Darr
- **Graduation Year:** May 2025

IOWA STATE UNIVERSITY, USA

- **Degree:** Master of Science, Computer Science
- **Advisor:** Dr. Ali Jannesari
- **Graduation Year:** Dec 2022

BIT SINDRI, INDIA

- **Degree:** Bachelor of Technology in Computer Science (With Distinction)
- **Graduation Year:** June 2015

WORK EXPERIENCE

IOWA STATE UNIVERSITY

- **Position:** Graduate Research Assistant
- **Dates:** January 2023 - August 2024
- **Description:**
  - Skills Used: Python, Pytorch, CUDA, bash scripts, slurm.
  - Unsupervised Learning approach to Object-Detection. Developed fully unsupervised leaning based object detection algorithm using contrastive learning.
  - Unsupervised Image retrieval. Developed algorithm to retrieve image using unsupervised learning.
  - Scaling Unsupervised Learning algorithm to HPC(High Performance Computing).

HAGIE MANUFACTURING (JOHN DEERE)

- **Position:** Data Scientist Coop
- **Dates:** January 2022 - January 2023
- **Description:**
  - President award winner for extraordinary performance.

- Skills Used: Alteryx, Ignition SCADA, Databricks, PowerBI, Microsoft Excel, AWS, RabbitMQ, Python, OpenCV, Pytorch.
- Using tools and techniques to perform Text Mining, ML models development for predictive analysis and automation and Computer Vision models.
- Design and develop project pipeline(Data Exploration, Sampling, Feature Engineering, Model Building, Field Performance Evaluation).

IOWA STATE UNIVERSITY

- **Position:** Graduate Research Assistant
- **Dates:** January 2019 - December 2021
- **Description:**
  - Skills Used: CAN-Bus, Python, OpenCV, POE, Pytorch, ROS
  - Developed real-time driver assist system for large farm-vehicles. Involved a system of 16 cameras, edge computing and image stitching to utilize the CAN protocols and integrate the mechanism to existing system.
  - Real-time depth detection and analysis using stereo camera(s). Used stereo camera to develop algorithm that can perform real-time depth detection and calculate volume of objects from the drone.

IOWA STATE UNIVERSITY

- **Position:** Graduate Teaching Assistant
- **Dates:** January 2017 - May 2019
- **Description:**
  - COMS 1060 (Introduction to programming using HTML5, CSS, PHP, SQL, JQuery, JavaScript). Responsible for helping students understanding concepts, clearing their doubts and grading assignments.

EXL(INDUCTIS) SERVICES INDIA PVT. LTD.

- **Position:** Business Analyst
- **Dates:** February 2016 - December 2016
- **Description:**
  - Awarded Rising Star Award (1 of 6 awardees out of 37,000+ employees)
  - Skills used: SAS, SQL, IBM-Netezza, DB2,Tableau, R, Python, Microsoft Excel.
  - Utilized applications like SAS to identify trends and relationships between different pieces of data, draw appropriate conclusions and translated analytical findings.
  - Created and worked on various reporting frameworks (Microsoft Excel, Tableau) that involved customer segmentation and clustering exercises for customers

SKILLS

- Languages and Tools: Python, Java, OpenCV, Pytorch,CUDA, Databricks, Ignition, Alteryx, AWS, Jenkins, IoT, Git, Unix
- Web Technologies: HTML, CSS, React, AngularJS, NodeJS.

AWARDS/GRANTS

ACCESS GRANT SUPPORTED BY NSF (CIS220069)

- **Description:** Develop algorithm for Unsupervised Object Detection.
- **Position:** Co-PI.
- **Grant Amount:** USD 174,000.

PROFESSIONAL SERVICE

INVITED SPEAKER

- **Description:** International 7-in-1 Symposium, CGC, Herning, Denmark.

REVIEWER

- **Conference:** ECCV 2024.
- **Conference:** ICML 2024.
- **Conference:** ICLR 2024.
- **Conference:** NeurIPS 2023.
- **Journal:** Journal of AI Research (JAIR).
- **Journal:** River Publishers.

PROFESSIONAL MEMBERSHIPS

- IEEE
- IEEE Computer Society
- Cohere for AI

ATTACHMENTS

RESUME

- **Description:** Click here to view my resume.
- **embed:** CVChandan.pdf