

# SEEMANDHAR JAIN

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## EDUCATION

- University of Illinois Urbana-Champaign (**Siebel Scholar, Class of 2024**) Il, USA  
Master of Science (M.S.) in Computer Science; GPA: 3.92/4 (**Fully Funded**) Aug 2022 - May 2024
- IIT Indore Indore, India  
Bachelor of Technology in Computer Science and Engineering; GPA: 3.6/4 July 2017 - May 2021  
Minor in Humanities and Social Sciences; GPA: 3.6/4

## SKILLS

**Programming Languages:** Python, Java, Apex, Swift, HTML, CSS, C/C++, R, Android, Arduino, SQL/SOQL, Matlab.

**Tools and Web Technologies:** Django, Flask, AWS, Angular, React, Docker, Tableau, Mulesoft, J2EE, Bootstrap, PHP, Scilab, Git.

**Research Skills and Technologies:** Artificial Intelligence, Computer Vision, PyTorch, TensorFlow, Deep Learning, Azure, Kubernetes.

## WORK EXPERIENCE

- University of Illinois Urbana-Champaign, IL, USA,** Aug 2022 - Present  
**Graduate Research Assistant** under Dr.David Forsyth
  - Collaborated with Dr. David Forsyth on *Blocks2World*, a two-step method for 3D scene rendering and editing using Diffusion models.
  - Researching the use of Control Knobs in Diffusion Models to enhance real-time intrinsic image decomposition.**Head Teaching Assistant** for CS 225 (Data Structure and Algorithms), CS 128 (Intro to CS), and CS 411 (Database systems).
- HealthAIgnite ([link](#))** Jan 2022 - Present  
**CEO, Founder and Managing Director**
  - Founded and currently manages HealthAIgnite, a leading healthcare AI consulting company focusing computer vision technologies.
  - Established partnerships with key healthcare institutions and MedTech companies, accelerating the adoption of AI solutions.
- DOCOMO Innovations, Inc.** California, USA  
**Research Intern** May 2023 - August 2023
  - Working on the development of a GPT2-based reallabformer model to fill missing data in datasets, improving model prediction.
  - Working on the development of a practical stereo depth system for videos, focusing on improving 3D depth perception.
  - Stable Diffusion based Ad generation, using mask-based inpainting utilizing LaMa with fine-tuned diffusion model on specific data.
- Salesforce** Hyderabad, India  
**AMTS Software Developer** July 2021 - August 2022
  - Worked as a software developer in the CnP team, focusing on the development of Salesforce Products and Einstein AI.
  - Implemented tax schema for EMEA region and performed full-stack development for feature enhancement on the Force.com platform.
  - Automated core patch regression processes and deployed APIs using Mulesoft and Heroku, resulting in significant time saving.
  - Served as a Scrum Master, leading the major release of the FnE product that added numerous new features for customers.
- University of Alberta, Canada** Jan 2019 - April 2021  
**Research Assistant** under Dr. Abhishek Srivastava and Dr. Osmar Zaiane,
  - Designed an automated surveillance system using ML models that utilize wireless sensor networks for detecting forest fires.
  - Implemented a two-tier anomaly detection algorithm to identify and predict adverse conditions from health parameter readings.

## SELECTED PUBLICATIONS

- Leveraging Control Knobs in Diffusion Models: Real-time Intrinsic Image Decomposition.** S. Jain, A. Bhattad, D. Forsyth. ICCV, 2024. [Under Review]
- Blocks2World: Controlling Realistic Scenes with Editable Primitives.** V. Vavilala, S. Jain, R. Vasanth, A. Bhattad, D. Forsyth. ACM SIGGRAPH, 2023. DOI: 10.48550/arXiv.2307.03847. [[link](#)]
- An Energy Efficient Fault-Anomaly Detection in Wireless Body Area Networks.** P. Jain, S. Jain, PK. Upadhyay, JM. Moualeu, A. Srivastava. ACM Transactions on Computing for Healthcare, 2022. DOI: 10.1145/3501773. [[link](#)]
- Anomaly Detection in Resource Constrained Environments with Streaming Data.** P. Jain, S. Jain, OR. Zaane, A. Srivastava. IEEE Transactions on Emerging Topics in Computational Intelligence, 2021. DOI: 10.1109/TETCI.2021.3070660. [[link](#)]

## ACHIEVEMENTS

- Selected as a **Siebel Scholar**, Class of 2024 by Siebel foundation from UIUC.
- Interviewed by **Times of India** news for research on wildfire detection algorithm (2022).
- Qualified for Onsite Round of ACM ICPC 2019 and received honorable mention in ICPC Amritapuri regionals.
- Secured All India Rank **1st** in IIT JEE Advanced (2017) in Mathematics Section with a score 122/122.
- Secured **State rank 2** and **International rank 26** in International Mathematics Olympiad (2015).