Himanshu Pahadia

himanshupahadia.me
github.com/pahadiahimanshu

Email : himanshu.pahadia@gmail.com
Mobile : +91-9654-3187-90

Education

- **Indraprastha Institute of Information Technology** — Delhi, India
  Bachelor of Technology, Computer Science; GPA: 7.44/10.0 — *Aug. 2014 – Jun. 2018*
- **Amrita Vidyalayam** — Delhi, India
  Senior School, Science stream - CBSE; Percentage: 90% — *May 2014*
- **Andhra Education Society school** — Delhi, India
  High School, CBSE; GPA: 9.4/10 — *May 2012*

Skills

- **Concepts and Technologies**: Computer Vision, Deep Learning, Augmented Reality, Virtual Reality, Human Computer Interaction
- **Programming Languages**: Python, Java, JavaScript, C/C++, C#, BluePrint Visual Scripting (Unreal engine), HTML, CSS
- **Tools and Libraries**: TensorFlow, TensorFlow Lite, Android SDK, Unity3D, Arduino, OpenCV, OpenGL, Unreal Engine 4, Google VR SDK, ROS, Vuforia SDK, Autodesk 3ds Max, Blender, Soot Analysis, Django, Flask, MongoDb, Adobe Creative Suite (Photoshop, Illustrator, Premiere Pro), Proto.io, LaTex

Experience

- **Zenlabs, Zensar Technologies** — Pune, India
  Associate Innovation Engineer — *Jul 2018 - Present*
  - Member of Smart Iye team (Computer vision, augmented reality, virtual reality) at the Zenlabs, research and innovation center of Zensar Technologies.
  - Working on a CTO-led special project in the autonomous driving domain. Received recognition for taking on projects with high risk, huge learning curve and tight deadlines.
  - Designed, developed and delivered a real time hand gesture recognition system using deep learning neural networks (on TensorFlow). The system is being used as an interaction module in a smart retail system and a mouse control system on MacOs.
  - Worked on multiple virtual reality and augmented reality solutions. Zenlabs' VR walkthrough app that I developed has been shown on multiple conferences and client visits.

- **Zenlabs, Zensar Technologies** — Pune, India
  Research and Development Intern — *May 2017 - Jun 2017*
  - **Received Pre-placement offer.**
  - Designed, developed and delivered a smart retail system called Smart Window. The system was enabled with hand gesture recognition, voice recognition and facial recogntion.
  - Developed a virtual reality walk through of Zenlabs. Designed the 3D models from scratch too.

- **Uber** — Delhi, India
  Graphic design Intern — *Jun 2016 - Aug 2016*
  - Worked on Uber's Loyalty program for Banglore Uber drivers. Designed multiple promotional posters using Adobe Illustrator and Adobe Photoshop.

- **IIIT Delhi** — Delhi, India
  Research Intern, Virtual Campus Project — *May 2015 - Jul 2015*
  - Worked with Dr. Ojaswa Sharma (IIIT Delhi) on Virtual Campus Project, a 3D interactive and immersive virtual/mixed reality environment of IIIT Delhi campus designed to support geospatial services including smart navigation and telepresence. I was responsible for developing the 3D model of the campus - rendering contours, terrain and virtual walkthrough in CryEngine. I developed the project's website too.

Workshops

- **Mentor, Winter School on User Experience Design, IIIT Delhi**: Mentored teams during the winter school. Taught high fidelity prototyping, online task analysis and prototype testing.

Patents

- **A system and method for performing tasks based on multi-modal hand gesture recognition**: The idea is to capture the high-frequency vibrations produced in muscles and visual feed to recognize the hand gestures using an ensemble neural network and perform tasks on the basis of recognized gestures. (Patent filed 2019)

Selected Projects

- **Interactive Swept Surface Modeling in Virtual Reality**: An interactive VR application that allows the user to sweep surfaces in virtual environment using both the motion-tracked controllers. It is an implementation of a paper by Tim McGraw, Esteban Garcia and Drew Summer (Purdue University).
- **Project Lazy Pizza**: Designed a platform that crowdsources the food delivery system within IIIT Delhi campus by implementing a barter system and virtual currency.
- **Depixelize Pixel art**: Implemented an algorithm that interpret each pixel of the pixel art and convert them into regions that can be drawn using piecewise-smooth curves. It is an implementation of a paper by Johannes Kopf and Dani Lischinski.
- **Safety first application**: An android application that aims to provide safety while driving. It predicts whether the person is driving using a trained model on collected accelerometer data, and takes action on whether to mute incoming notifications.
- **Smart Automotive Bot**: Smart car, powered by Raspberry Pi and multiple sensors like Ultrasonic, infrared and Pi camera, that can understand the traffic signal, detect platform edge and obstacles.

Volunteering

- **Health Fitness Trust** Delhi, India
  Teacher *Dec 2017 - Jan 2018*
  - I volunteered as a teacher in a Minority group skill enhancement project at the NGO (partnered by Ministry of Minority Affairs)
  - Taught 20-30 students english, soft skills, computer science and career enhancement skills.

Organizations and Activities

- Ink. (Design club) - Club Coordinator
- Media Panel (Official content to IIIT Delhi) - Head, Design team
- Odyssey'18 (Cultural fest) - Creatives Head, Organizing committee
- UX design winter school'17 - Teaching Assistant
- Esya16 (Technical fest) - Creatives Head, Organizing committee
- Design 360 (IIIT Delhi's first designathon), Odyssey17 - Event head
- TEDxIIITD16 - Design Head
- Cadence16 - Event organizer, Organizing team
- Esya15 - Organizing team
- Odyssey15 - Organizing team