

Rajandeep Singh

Software Developer

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EDUCATION

- Georgia Institute of Technology, MS Computer Science** 08/2021 – 05/2023 | Atlanta, USA
CGPA: 4.0/4.0
- SRM IST, B.Tech. Computer Science and Engineering** 07/2016 – 05/2020 | Chennai, India
CGPA: 9.0/10
- University of California Berkeley, Startup Semester Abroad Program** 01/2019 – 05/2019 | Berkeley, USA
CGPA: 3.9/4.0

EXPERIENCE

- Teaching & Research Assistant, Georgia Institute of Technology** 01/2022 – present | Atlanta, USA
- Mentored projects on multiplayer AR games and head-worn display design as a TA for CS7470 Ubiquitous Computing.
 - Led research projects on head-worn displays and captioning as part of Dr. Thad Starner's Contextual Computing Group.
- Principal Innovation Engineer Intern, PTC Reality Lab** 06/2022 – 08/2022 | Boston, USA
- Drove research on spatial computing and multitasking for web-based AR as well as built production-ready tools.
 - Designed and implemented an import tool for 3D Onshape models for Vuforia Spatial Toolbox using three.js and node.
- Software Developer, Avontus Software** 06/2019 – 06/2021 | Remote
- Led development on an AR/VR cross-platform app for viewing 3D CAD drawings with 2,000+ active B2B users.
 - Handled development on 4 major products including a CAD software, .NET business tools, and internal libraries.
 - Spearheaded Unity, .NET and computer graphics development efforts for dynamically creating meshes for CAD models.
- Research Intern, IMXD Lab, IIT Bombay** 01/2020 – 06/2020 | Mumbai, India
- Researched, designed, and developed AR learning tools for students in rural India. Also prototyped VR films.
 - Assisted in teaching Unity as part of "Design for VR" course to Masters of Design students.

AWARDS

- Hackathon Wins: LA Hacks (UCLA) 2019 Winner (5 Awards) [🔗](#), SF Hacks (SFSU) 2019 Winner (Best Use of GCP) [🔗](#)
- University of California, Berkeley Scholarship of \$20K to attend Startup Semester, Spring 2019 awarded by SRM IST
- Unity Student Ambassadorship and GDC 2019 Scholarship awarded by Unity, 2018 - 2020

PROJECTS

- Everyday Head Worn Display (Conference: ISWC 2022 HWD Exhibition)**
- Prototyped input devices, headsets, software tools and researching use cases and challenges for HWDs for daily use.
 - Conducted studies on wearable remembrance agent, typing on HWD, ideal weight, eyebox and focus distance for HWD.
- ScholAR - AR for Enhancing Educational Experiences** [🔗](#)
- Explored potential collaborative AR education solutions for middle school students and teachers in rural India.
 - Designed and developed offline networking solutions for multi-user AR experiences using Unity3D.
- Scene Creation Using EEG Signals (Journal: IJAST 2020)** [🔗](#)
- Created assistive communication and rehabilitation tools for disabled individuals using EEG signals from a BCI.
 - Studied noise reduction in EEG signals with the help of VR, deployed CNN to predict objects in user drawings.
- AR for Visually Impaired Individuals (Conference: IndiaHCI 2019)** [🔗](#)
- Designed, developed, and studied audio cues on Hololens to inform visually impaired users of immediate surroundings.
 - Programmed mesh processing, text recognition, text-to-speech, spatial audio and presented at Microsoft Reactor, SF.

SKILLS

Development Areas

AR/VR, Computer Vision, Machine Learning, Animation, Graphics, Full-Stack Web Dev, Hardware Prototyping

Languages

C#, Python, C, C++, CUDA, OpenMP, MPI, HLSL, Shaders, Java, JavaScript

Platforms and Tools

Unity, Hololens, Magic Leap, ARCore/Kit, PyTorch, NodeJS, three.js, .NET Mobile & Desktop