Ayaskant Panigrahi

I want to create seamless interactions between humans and computers through innovative work in 3D and Extended Reality User Interfaces

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Education

Year	Qualification	Institute	GPA/%
2022 (expected)	MSc. in Interactive Arts and Technology	Simon Fraser University, BC, Canada	4.13 (Spring '22)
2020	B. Tech. in Computer Science and Engineering	Indian Institute of Information Technology, Design and Manufacturing, Jabalpur (IIITDMJ)	8.6/10 CPI

Research experience

- **VVISE Lab, Simon Fraser University** **Themes:** VR/AR | Interaction Design | Unity3D
  Jan 2021, ongoing
  Research on 3D interaction techniques in Virtual and Augmented Reality under the supervision of Prof. Wolfgang Stuerzlinger, School of Interactive Arts and Technology (SIAT).

- **IVE Lab, IIITDM Jabalpur** **Theme:** Deep learning based Image Segmentation
  Jan – Sep 2020
  Research on automatic smoke segmentation using deep learning methods under the guidance of Dr. Pritee Khanna, Dept. of Computer Science and Engg.

- **Embedded Interaction Lab, IIT Guwahati** **Themes:** VR interaction design | Unity3D | Leap Motion
  May – Nov 2019
  Six-month research internship under Dr. Keyur Sorathia's guidance. Developed Unity3D application (with C# scripting) to prototype and test various free hand gesture-based selection techniques in Immersive Virtual Environments. Also worked on a bespoke hand-held controller for non-visual exploration of virtual space.

- **OzCHI 24-hr Student Design/Research Challenge** **Themes:** AR interaction | Service Design
  Aug 2019
  Team specially mentioned as being among the top five from all participating teams worldwide. Designed a smart city service for community resilience during adverse conditions like floods in Mumbai

Publications

- Shimmila Bhowmick, **Ayaskant Panigrahi**, Pranjal Borah, Pratul Kalita, and Keyur Sorathia. 2020. Investigating the Effectiveness of Locked Dwell Time-based Point and Tap Gesture for Selection of Nail-sized Objects in Dense Virtual Environment. *In Symposium on Spatial User Interaction (ACM SUI '20).* Article 26, 1–2. DOI: https://doi.org/10.1145/3385959.3422701
- Pranjal Protim Borah, **Ayaskant Panigrahi**, and Keyur Sorathia. 2020. TMOVE: Multimodal Feedback Actuator for Non-visual Exploration of Virtual Lines. *In Proceedings of the Fourteenth International Conference on Tangible, Embedded, and Embodied Interaction (ACM TEI '20).* 603–610.
  DOI: https://doi.org/10.1145/3374920.3374994

Work experience

- **IAT 312: Foundations of Game Design** *(SFU, Jan 2022, ongoing)* **Graduate Teaching Assistant**
  I guide undergraduate students in analyzing and designing video/board games by leading workshop sessions.

- **IAT 410: Advanced Game Design** *(SFU, Sep – Dec 2021)* **Graduate Teaching Assistant**
  I supported final year undergraduate students in designing and developing polished games based on industry practices using game engines like Unity, which were judged by a panel of experts at the end of the course.

Leadership Roles

- Acted as leading member of **Institute Game Development group**, part of team which conducted **workshop on Unity** and participated in the **Ludum Dare** International Game Jam
- Part of 4-member **Project Steering group** leading development of **Institute ERP software** (Fusion)

Test Scores

- **GRE General Test:** 332/340 (Quantitative – 168, Verbal – 164, Analytical Writing – 4)
- **TOEFL:** 108/120 (Reading – 28, Listening – 30, Speaking – 23, Writing – 27)

Skills

- **Languages & Tools:** Unity, SteamVR / Oculus / Varjo, C#, WebXR with Aframe, Javascript, Processing, p5js
- **Platforms:** VR/AR/XR – PC and WebXR, Android, Raspberry Pi, Arduino

Major Projects

- **PlayVoxel – runner up in Steampunk Digital VR challenge** **Skills:** VR | WebXR | Javascript/TypeScript
  Feb 2022
  Exploring the strengths of WebXR and PlayCanvas to make a VR voxel drawing tool for Meta Quest 2

- **Imagining Virtual Funerals** **Skills:** VR UX Speculative Design | Javascript
  Mar 2021
  Designed and programmed interactions for a speculative design project on Virtual Funerals of the future, involving scripting with Javascript on the Tivoli Cloud VR platform

- **Fusion – Institute ERP Software** **Skills:** Django | Git VCS | Software Engg.
  Jan – Apr 2019
  Led the development of ERP software, managing contributions using a Forking Git workflow

- **JIGREE brand – Improving Jabalpur tourism sector** **Skills:** Service Design | Arduino
  Sept – Nov 2018
  Intervenes at all steps in tourists' journey by providing a central Android app during their stay in Jabalpur

- **"Pandemonium" game for Carpe Noctem** **Skills:** Game Development
  Oct 2017
  Participated in and won a 72-hr institute wide gamejam based on the theme "Steampunk"

Relevant coursework

- **Augmented, Virtual and Mediated Reality** (Spring '21, SIAT, SFU)
- **Creative Programming for Digital Media & Mobile Apps** (University of London, online via Coursera)
- **3D Interaction Design in Virtual Reality** (University of London, online via Coursera)
- **Human-Centered Design: an Introduction** (UCSD, online via Coursera)
- **Deep Learning** (Spring '20, IIITDMJ)

Awards and Achievements

- **FCAT Graduate Fellowship** valued at **3500 CAD**, SIAT, SFU **2022**
- **Entrance Graduate Fellowship** valued at **7000 CAD**, SIAT, SFU **2021**
- **IIITDMJ Proficiency Prize** for the best project in the graduating batch **2020**
- **Institute topper** in **NCAT 2019** First round with a nationwide percentile of 99.2 **2019**
- **Runner up team in Hackathon by Vassar Labs** **2017**
  out of 10 teams for making innovative Android app Tourism platform for discovery of offbeat places
- **Selected for the prestigious Kishore Vaigyanik Protsahan Yojana (KVPY) Fellowship** **2015**
- **Awarded Scholarship under National Talent Search (NTS) Scheme** **2012 - 2020**