Venkatesh Potluri

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Education

- **B.Tech HONS & MS by Research (Dual Degree)** — IIIT-Hyderabad
  Computer Science & Engineering. 2010 to 2015 — *International Institute of Information Technology, Hyderabad*
- **Senior Secondary** — P. Obul Reddy Public School
  2008 to 2010 — *Hyderabad, India*

Experience

- **Microsoft Research** — Research Fellow *(Advised by: Dr. Manohar Swaminathan)*
  July 2017 - Present — *Bangalore, India*
- **Microsoft Research India** — Research Intern
  Bangalore, India — *January 2017 to may 2017*
  - **CodeTalk**: GUI based programming environments convey information to sighted developers through visual cues. This information is not conveyed to screen reader users. CodeTalk is a VisualStudio plugin that introduces code glanceability, navigability and alertability (access to realtime IDE information). In CodeTalk, we introduced our version of debugging through speech and non-speech audio.
  - **Soundscape for VisualStudio**: The idea is to design and explore the use of a spatial audio UI to improve usability of GUI based programming environments for developers with visual impairments. Our goal is to measure the impact the use of multiple audio sources to convey information has on a developer.
  - **CloudATM**: Financial services are not very accessible to people with visual impairments in india. In this effort, we propose a new ATM software design to improve accessibility of ATM cash withdrawals for people with visual impairments.
  - **Contributions to SeeingAI**: I have contributed to the SeeingAI project during their initial release through feature enhancement suggestions.
- **Microsoft India R&D Private Limited** — Consultant *(Reported to: Sudhakar Pasupuleti & Amrut Kale)*
  Hyderabad, India — *April 2016 to December 2016*
  - **Office accessibility on Android**: Worked in the team responsible for accessibility of Office Apps on Android. My technical abilities and my expertise in the accessibility domain enabled me to contribute to various stages of shipping the accessibility experience; from prioritising different features and designing the right experience with the program managers to implementing and shipping these experiences with the engineering team. The product's accessibility experience has received positive feedback from customers.
  - **Prototype to improve navigability in word processors**: The idea was to try and simplify navigating through the complex UI of microsoft word. The approach was to use voice input to address this. I was responsible for proposing, ideating and implementing this prototype. The idea has received recognition and appreciation from microsoft's leadership team.
  - **Accessibility tests for Office apps on Android**: I was responsible for testing and identifying accessibility issues in Office apps on Android. In addition to identifying issues as per Microsoft's Accessibility Standard (MAS), I was also responsible for identifying usability issues in the accessibility experience of these apps.

Projects

- **Audio Rendering of Mathematical Content**: This project explored the use of speech and non-speech cues to render mathematical content (equations and pie charts) in audio. Techniques were proposed that made use of pitch and rate variations, intonation, pauses in text to speech systems, and spatial sound to render equations in audio.
- **Unified keyboard layout for screen readers**: Every screen reader has its own style of keyboard shortcuts, makeing it difficult for visually impaired users to switch between different screen readers and platforms. The idea was to explore and propose guidelines for choosing keyboard shortcuts for screen readers and eventually come up with a universal keyboard shortcut mapping.

Workshops

- **JAWS and Assistive Technology in Apple Products**: Co-organised a one day workshop to spread awareness on the current assistive technology and the possible ways to adapt. I was one of the 2 resource persons for this workshop. co-organised with Frontline Eye Hospital, Chennai, IndiaOctober 2013
- **Computer Training in Assistive Technology**: Co-organised a 10-day workshop conducted in collaboration with Frontline Eye Hospital, Chennai. Here, I introduced parents and individuals with disabilities to JAWS and helped them learn to perform basic tasks (word document creation, email, recreation on the internet and using cloud storage services). I was involved in designing the content, practice exercises and conducting classes for the workshops. Organised in collaboration with Frontline Eye Hospital, Chennai, India Jun 2015

Invited Talks and Presentations

- **Significance of Cues in Synthesis of Mathematical Content** — University of Hyderabad, India
  Annual Cognitive Science Conference organized by ACCS India — *7 October, 2017*
- **Visionary Fighter** — Hyderabad, India
  TEDxYouth@Hyderabad — *Nov 20, 2016*
- **Significance of Cues in the Synthesis of Mathematical Content** — San Diego, USA
  International Technology and Persons with Disabilities Conference — *March 5, 2015*
- **Technology for the Visually Impaired** — Hyderabad, India
  Engineering the Eye workshop by MIT Media Lab and LV Prasad Eye Hospital — *July 1, 2013*

Awards and Scholarships

- **Microsoft Research Student Travel Grant**: Microsoft, January 2016
- **Best Student Award**: P. Obul Reddy Public School, 2010
- **Exceptional Student Award**: Meridian School, 2008

Skills

- **Skills**: C, C++, Python, C#
- **Assistive Technology**: JAWS, Mobile Speak, TalkBack, VoiceOver (Os X and iOs), NVDA and Orca.