Priyan **Vaithilingam**

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Education

Indian Institute of Technology (IIT), Indore   *Indore, India*
B.Tech. in Computer Science and Engineering | (9.02 out of 10)   *June 2011 - May 2015*

Work Experience

Microsoft Research India   *Bangalore, India*
Research Fellow   *Mar. 2016 - Present*
- Participating in cutting edge research in HCI, Programming Languages and Information Retrieval
- Won 2nd place worldwide in Microsoft Hackathon 2017 (consumer category)

Microsoft India   *Hyderabad, India*
Software Engineer   *June 2015 - Mar. 2016*
- Migrating the internal data services tool to Cosmos:Microsoft's big data platform.
- MACH journalist for Microsoft Internal newsletter.

Student Entrepreneurship Support Cell, IIT Indore   *Indore, India*
Co-Founder & E-Leader   *Aug. 2013 - Jan. 2015*
- Won 2nd place in National Entrepreneurship challenge on behalf of the club.
- Secured funding for incubating 5 start-ups within the institute.

Microsoft India   *Hyderabad, India*
Software Developer Intern   *May. 2014 - July 2014*
- Worked on Enterprise feedback management.
- Contributed to Battleship game (internal) for XBOX Kinect.

Publications

CodeTalk: Improving programming environment accessibility for Visually Impaired developers. *ACM SIGCHI 2018 (Honorable Mention)*

Venkatesh Potluri, **Priyan Vaithilingam**, Suresh Iyengar, Vidya Y, Manohar Swaminathan, Gopal Srinivasa

Projects (https://priyan.info/projects)

CodeTalk: Improving IDE Accessibility for Visually Impaired Developers   *Microsoft Research*
Submitted to ACM SIGCHI 2018 | Open sourced in GitHub
- Enhancing programming accessibility for Visually Impaired developers by introducing quick navigation and audio debugging
- Worked on Audio Debugging using speech and non-speech audio.
- Soon to be Open-sourced in GitHub
- Results submitted to ACM SIGCHI 2018

Interactive Cane: ML enabled smart walking stick for Visually Impaired people   *Microsoft Research*
Featured in Microsoft blog.
- Smart cane for visually impaired people, which uses Edge devices combined with sensors to enable easy navigation.
- Detects gestures including fall.
- Worked on efficient streaming of sensor data, and the cane hardware prototype.

PSharp: Safer Asynchronous Programming Language   *Microsoft Research*
Open sourced in Git Hub
- PSharp provides a systematic testing engine that can capture and control all specified nondeterminism in the system.
- Working on Dynamic Race Detection.
- Enabled large scale parallel testing of PSharp binaries in cloud.

Email Insights: Faster and Relevant Email Search   *Microsoft Research*
Released by Microsoft | Featured in Microsoft Blog
- New email experience, using relevance based search, fast auto-complete, intelligent auto-correct, custom commands and multi-tabbed UI.
- Features en-route to Microsoft Outlook and Exchange.
- Available in windows store.

SmartLockscreen: A lockscreen which understands your environment.   *IIT Indore*

OPEN SOURCED IN GITHUB

- Faster and safer way to unlock your smartphone with context awareness.
- Released in XDA Developers. Open sourced in GitHub
- Worked on context-awareness service and secure user profiles.

BattleShip Game for Kinect   *Microsoft India*

RELEASED INTERNALLY WITHIN MICROSOFT

- Dual Screen interaction model
- Contributed to the computer AI using probability models.
- Installed in Microsoft Offices across Redmond and Hyderabad.

Pac-Man in 3D: With autonomous playing   *IIT Indore*

OPEN SOURCED IN GITHUB

- Multiple Viewing modes.
- Worked on 3D game interface and minimax based AI algorithms for autonomous Pac mode.
- Built using OpenGL

Press & Media

Research That Matters, Financial Express   *Dec. 2017*

CodeTalk: Rethinking IDE Accessibility, Microsoft Research Blog   *Feb. 2017*

AI's big leap to tiny devices opens world of possibilities, Microsoft Blog   *June 2017*

Find messages faster with the Microsoft Garage's latest release, Email Insights, Microsoft Blog   *Feb. 2017*

Honors & Awards

2017   **Microsoft Hackathon 2017**, Wordlwide 2nd Place (developer category)
2015   **National Entrepreneurship Challenge, 2015**, 2nd Place