

Khushman J. Patel

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“Mixed reality is the first step in a grand adventure into the landscape of the imagination.”

Education

Georgia Tech - Georgia Institute of Technology

Atlanta, Georgia, USA

M.S. IN COMPUTER SCIENCE

Aug. 2018 - Present

- Specializing in Mixed Reality under the umbrella of Human Computer Interaction.
- Working on the first ARML 2.0 interface with Prof. Blair McIntyre for realtime AR feeds.

IIIT Allahabad

Allahabad, UP, India

B. TECH. IN INFORMATION TECHNOLOGY

Jul. 2009 - Jun. 2013

- Founding secretary of the technical club, entrusted with the college network, servers, and innovating new services.
- **Published a paper in an IEEE Conference:** Patel, Khushman, et al. "Lazy Wavelet Transform Based Steganography in Video." Communication Systems and Network Technologies (CSNT), 2013 International Conference on. IEEE, 2013.

Experience

Housing.com

Mumbai, India

TECH LEAD, VIRTUAL REALITY

Mar. 2015 - Sep. 2017

- VR exploration
 - Engineered Housing's VR product from scratch as an individual contributor, driving 0-1 product development without any tech/product leadership.
 - Designed intensive usability testing programs; experimented with every facet of design and tech to deliver a state-of-the-art result.
 - Set up a VR team of driven designers, and developers, leading them through continuous innovation.
- Automated VR creator for interior models
 - Drove scalable production through a multi-layer system, seamlessly connecting the browser to Unity. Coupled with a model maker, cut down delivery times from months to hours.
 - Developed and maintained the backend, which tied into the Housing's vast database, enhancing the visual experience with contextual information.

SOFTWARE DEVELOPER

Dec. 2014 - Mar. 2015

- Routing System
 - Built the routing system for Housing's map interface. Features like multi-transit isoline generation were efficiently designed for response times <200ms.
 - Scaled to thousands of concurrent users, tested in production after driving traffic through a conversion rate of 60%.
- Polygon crawler
 - Designed an efficient polygon and fid/address crawler for cities from Google's Mapmaker.
 - Accelerated city addition by automation instead of manual data entry, scaling lead time 3x.

Cisco Systems

Pune, India

SOFTWARE ENGINEER

Aug. 2013 - Dec. 2014

- Contributed to the SGW+PGW nodes in the LTE architecture. Gained an in-depth understanding of high-scale, low-level C code, following stellar software engineering practices including AGILE, peer reviews and version control.
- Delivered a graphical network debugger as a solo project. Using Cisco's monitor protocol, it mapped inter-node communication. Reduced debugging times to hours from days, and found long-standing undiscovered bugs.

SOFTWARE ENGINEER INTERN

Jan. 2013 - Jun. 2013

- Completed a partial simulator for the SAEGW(SGW+PGW) node, and extended it into an automation framework.
- Scripted automated unit and integrated testing for every release, helping subsequent releases become much faster by reducing QA load.

Skills

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|-----------------------|---|
| Programming | Python, C, C++, QT, Unity3D C#, Bash shell, Android Java, LaTeX, Aframe |
| Web Tech. | Ruby on Rails, HTML5, nginx, PostgreSQL, PostGIS, Pg-routing, Polygons, JS |
| Software Engg. | Agile development, Scrum, Git, Peer reviews |
| Leadership | Led a team of 5 people to continuously innovate on one of India's first VR products despite an unfavourable environment of company-wide restructuring and mass layoffs. |

Extracurriculars

VRoom

Hackathon, Mumbai

PROGRAMMER

16 - 17 Oct. 2015

- Envisioned, and coded a VR auto room decorator, involving preset furnitures and space calculations.
- Encoded 11 primary rules of interior decorating to allow proper automated placement of interiors.
- Added an interior randomizer function, allowing quick glances to the possibilities of the room.

Blog

WRITER/TECH

- Hobbyist poet and writer
- <http://khushmanpatel.com/blog>

Time Person of the Year 2006