

Apurv MEHRA

Senior Program Manager, Microsoft

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WORK EXPERIENCE

FEB. 2021 - CURRENT Senior Program Manager, **EMERGING MARKETS, MICROSOFT**, India

- Product owner for *intrapreneurial* project **Mishtu** (Assisted selling experience for last mile underserved consumers via μ SMBs), where I lead a 10+ member cross-functional team of PM, Designers, Engineers and QA.
- The platform was conceptualized to overcome several *barriers* a typical novice user in rural in India faces while accessing digital services online.
- I worked with a team of designers and engineers to conduct initial user studies, develop POCs and architect the end-to-end technology platform for conducting pilots
- The pilot results were presented to MS SLT including Satya and incorporated into MS India Retail Strategy.
- Worked with several internal and external stakeholders to mature the idea from concept and research prototype stage to a product candidate. [| official project page](#)

FEB. 2019 - DECEMBER 2021 Co-Founder and CTO, **Three Wheels United**, Bangalore, India

- **Strategy & Fundraising:** Defined and aligned the technology vision and strategy with overall company objectives, created product roadmaps and responsible for technology resources/budget planning. Pitched at major forums and to several impact VC's, raising USD 1M as seed capital.
- **Bootstrapping:** Founded and managed the technology team of 4+ engineers including Head of Engineering. Responsible for setting up all the processes, infrastructure and IT tools being used across the company.
- **Technology:** Conceptualized and architected *Prayana* - the data-driven lending platform powering TWU. Scaled research prototype into production which drastically improved efficiency of field agents by over 100%. The application support 40k+ drivers, 5k+ active loans and has collected over 50k+ payments worth USD 3M in total.
- **Partnerships:** Managed key external partnerships with Uber, Mahindra Electric, Novopay and Ujjivan SF Bank to define processes and technology integration for supporting various parts of lending cycle.

JULY 2018 - JANUARY 2021 Research Engineer, **SCAI Center, MICROSOFT RESEARCH**, India
Manager: **B. Ashok, Tanuja Ganu**

- As *tech lead* for the **BlendNet** project, I worked with a cross-disciplinary team of junior engineers, designers and PM's to successfully engineer prototypes which helped in conducting scaled pilots spanning several cities. Also defined the technology roadmap and requirements to launch BlendNet as a full-fledged service on Azure.
- Collaborated with a team of Researchers and Interns to design **Blockene** - World's first mobile powered societal scale Blockchain protocol with throughput of 1000+ tps. Implemented the full scale protocol including simulating 2000+ android devices and 200+ storage nodes to empirically measure various protocol parameters.
- Consulted with **TRAI** (Govt. of India) on mechanisms to leverage Blockchain to address problem of **SMS and Telecaller Spam** in India. Developed and demonstrated POCs to senior government leaders which helped in formalizing a first of its kind **regulation** promoting adoption of blockchain technology by Indian Telecom Sector.
- Spearheaded hiring effort for **SCAI** team and defined engineering process and created onboarding documentation.

JULY 2016 - JUNE 2018 Research Fellow, **TEM Group, MICROSOFT RESEARCH**, India
Manager: **Dr. Jacki O'Neill**

- **Financial Inclusion:** Conducted ethnographic studies with auto-rickshaw drivers to understand challenges in loan repayment process. Developed applications which improves loan awareness and adherence for low-literate, low-income communities. We deployed the solution with partner organizations to evaluate its efficacy by collective qualitative and quantitative data from the field. [| project page](#)
- **Philanthropy:** Conceptualized a novel blockchain platform - **Vishrambh** - to address problem of trust in philanthropy sector. Led engagements with NGOs to conducted ethnographic study to identify gaps in current use of technology. Developed POCs and conducted pilots to demonstrate platform effectiveness. [| project page](#)

MARCH - JUNE 2016 Data Engineer, Big Data Team, **FRACTAL**, India
Project: **Analytical Data Warehouse for a Loyalty Program**

- I led the team in-charge of ETL (extraction, transformation and load) initiatives for Hadoop based warehouse. Designed and Developed the pipelines for structured data and semi-structured data.
- Configured Access Control, Data Security, and Disaster Recovery for the cluster based on requirements.

SEPT. 2014 - FEB 2016 Research Associate, MUC Group, IIIT - DELHI, India

Manager: [Dr. Pushpendra Singh](#)

- **iCHS - Interoperable Collaborative Health Exchange:** Designed and developed a collaborative and anonymous health information exchange middleware based on Pub-Sub paradigm. The research was conducted in collaboration with PGI - Chandigarh. [| project page](#)
- **Mew - Intelligent Query Allocation in Crowd Sensing Systems:** Developed and evaluated a framework for intelligent query allocation in crowd sensing systems. The new proposed algorithm improve the fairness in task allocation by >3% of current state-of-the art techniques. [\[PDF\]](#)

EDUCATION

AUGUST 2014 Master of Technology in COMPUTER SCIENCE AND ENGINEERING

- CGPA: **9.30/10.0**, **IIIT - Delhi**, New Delhi
- Thesis: Interoperability Model for Health information Systems and Associated Benefits Challenges and Approach
- Advisor: [Dr. Amarjeet Singh](#)

MAY 2013 Bachelor of Technology in COMPUTER SCIENCE AND ENGINEERING

- CGPA: **8.16/10.0**, *Finance Specialization*, **IIIT - Delhi**, New Delhi

SELECTED PROJECTS

JUNE'13 - AUG'14 Interoperability in Practise for Health Information Systems

- Collaborated with global non-profit [HISP - INDIA](#) to understand interoperability challenges between two widely used opensource health information system [OpenMRS](#) and [DHIS2](#)
- Designed and developed a reference implementation using SDMX-HD which was deployed across hospitals in the state of Himachal Pradesh, India
- Collected qualitative and quantitative data from deployment and combined hospital data with external indicators like weather and pollution to created novel dashboards [| link to project page](#)

AUG'12 - MAY'13 Improving Healthcare Efficiency using IT

- Collaborated with [Apollo Research](#) to conduct a detailed 3 month long empirical study of the existing hospital information system being used across Apollo hospitals
- Created a comprehensive report of improvements which was presented to senior management. Worked with Apollo IT team to incorporate changes
- Worked on experimental solution of recording sensor data directly into information systems. Extended [ODK Sensors](#) to collect data from several health sensors on Android devices

PUBLICATIONS, PATENTS, AND AWARDS

- PUBLICATIONS** Authored **10+ publications** in top international conferences (OSDI, CHI, CSCW, ICTD) in various interdisciplinary domains such as Financial Inclusion, Blockchain, Healthcare etc.
- PATENTS** Filed **5+ patents** on topics related to Networking, Aerial Imaging, Efficient Blockchain Design, Novel credit-scoring models for emerging market users.
- OPEN SOURCE** Strong proponent of FOSS have **contributed** to several popular OSS projects like [Hyperledger Fabric](#), [OpenMRS](#), [HispIndia](#), [ODK](#) among others.
- MICROSOFT** Won [Microsoft '//oneweek' Global Annual Hackathon](#) several times under different categories. Two of the Hackathon ideas/prototypes became Microsoft products - [Farmbeats](#) and [Mishtu](#).
- ANGEL HACK** Winner (1st place) of [AngelHack Global Hackathon Series: Bangalore Chapter](#). Developed a Blockchain based intelligent escrow service which allowed policy based lending or donations.
- DECEMBER 2013** [ICTD Emerging Researcher Scholarship](#) to attend ICTD pre-conference symposium and ICTD main conference in Cape Town, South Africa.
- MARCH 2013** Ranked Top 1% out of 224,160 in [Graduate Aptitude Test Exam](#) conducted by IIT- Bombay. Awarded Scholarship based on the result by [AICTE](#), India.