

P JOY PRABHAKARAN

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SUMMARY

Broad experience in terms of roles, technologies and domains. I have run my own business for about ten years, worked for large corporates for about ten years and have been a teacher for about seven years.

Worked on different areas of software technology, embedded systems and hardware development. The domains include video technologies, mobility, aerospace products, database solutions and some narrow focused work in big data.

While doing my PhD, I also worked part time for Yahoo, IIIT Bangalore, Wipro and TCS.

EDUCATION

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| 2012 - 2018 | PhD. Thesis title – Novel Techniques in Image Zooming and Hierarchical Multi-Resolution Image Representation. <i>IIIT Bangalore</i> . CGPA – 3.92 (Scale of 4) |
| 1988 - 1989 | MS in EE, <i>Michigan Technological University</i> . CGPA – 4 (Scale of 4) |
| 1984 - 1988 | B.Tech in E&ECE, <i>IIT Kharagpur</i> . CGPA – 7.68 (Scale of 10) |

EXPERIENCE

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| Oct 2011 – Feb 2018 (Part time) | Adjunct Professor, IIIT Bangalore. I have taught undergraduate and graduate level engineering students. My research interest is in image/video processing and embedded systems. |
| June 2015 – May 2016 (Part time) | Technology Consultant – Cloud based system to monitor internet video quality, TCS. I consulted with TCS to build a fully functional product to implement some IP that I had developed. This was to measure End User Video Quality for internet video providers. |
| Jan 2015 – Dec 2015 (Part time. Total of 9 months) | Technology Consultant – Analytics of retail operations, Wipro. I provided technology guidance to a team in the CTO's org that worked on analytics of retail operations, primarily using video and image data. |
| Oct 2011 – Dec 2013 (Part time) | Technology Consultant – Internet video delivery, Yahoo. I joined Yahoo to help set up the team for the video ingestion pipeline Bangalore, and transition the work from Dallas. After this, I moved to a technical role. I brought down the bandwidth consumption for Yahoo Videos by 25% and also improved the visual quality by 20%. This involved optimization of a system that had half a billion views per month worldwide. |
| Oct 2010 – Oct 2011 | Vice President - Engineering, Sourcebits. I led a 200+ member engineering team working primarily in the area of mobile app development. At any given time we had about 30 projects running in parallel. |
| Sep 2005 – Oct 2010 | Engineering Manager, Celstream. I managed teams working on different areas of media & entertainment as well as printing technologies. My strong technical contributions were in projects related to codecs, streaming and projects with a strong embedded flavor. My projects were for various companies including Technicolor, Xerox, On2 (now part of Google) among others. |
| Sep 2002 – Sep | Engineer Fellow, Honeywell. I was partly responsible for setting up the hardware BU at |

- 2005 Honeywell Bangalore. Since this was a new group, my role involved everything from business development, execution, infrastructure building, recruitment and also research.
- Mar 1991 – Sep 2002 **Founder, Techline.** I founded Techline in 1991 with an initial industrial controls project from HLL. This was followed by projects in a broad spectrum of areas like database solutions, imaging, control systems and communication. We took up both software and hardware projects. At its maximum size, Techline employed about forty people.
- Sep 1989 – Mar 91 **MTS-II, ER&DC (now CDAC).** I worked as an ASIC designer.
- Jun 1988 – Aug 88 **Guest lecturer, College of Engineering - Trivandrum.**

DOMAINS

Embedded systems and hardware, including aerospace systems
 Multimedia codecs and large scale multimedia distribution
 Machine vision and video analytics
 Data analytics for internet scale system optimization

SKILLS

Strong programming skills with a focus on C and embedded firmware
 Digital Multimedia and Image Scaling
 Systems design
 Data analytics
 Different aspects of management
 Process – Six Sigma Green Belt

PATENTS

1. Potentiometer providing a high resolution. USPTO filing by Honeywell. Status – Granted.
2. Potentiometer system and method. USPTO filing by Honeywell. Status – Granted.
3. System and Method to Input Data - IPO filing as an individual inventor. Status – Abandoned when the patent office sent queries ten years after filing.
4. Method and system for measuring end user video quality. Filed for 35 countries by TCS. Status - Published.
5. Method and system for content and consumption aware, adaptive bitrate streaming of videos. IPO filing as an individual inventor. Status - Filed

PUBLICATIONS

1. P. Joy Prabhakaran and Poonacha P. G, "A new decimation and interpolation algorithm and an efficient lossless compression technique for images," 2015 Twenty First National Conference on Communications (NCC), 2015.
2. P. Joy Prabhakaran and Poonacha P. G, "A novel targeted enhancement technique for decimation and interpolation of images". Seventh International Conference on Graphic and Image Processing (ICGIP 2015), Vol. 9817, 2015.
3. P. Joy Prabhakaran and Poonacha P. G, "A Novel Location and Neighborhood Adaptive Method for Binary Image Interpolation". SIGNAL 2017, The Second International Conference on Advances in Signal, Image and Video Processing, 2017. This paper won the Best Paper Award at the conference.
4. P. Joy Prabhakaran and Poonacha P. G, "A Non-Linear Method to Interpolate Binary Images Using Location and Neighborhood Adaptive Rules". International Journal on Advances in Software, Vol. 10, 2017.