Tapasweni Pathak

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I live with name tapaswenipathak, please find more information online.

Education

- **Indira Gandhi Delhi Technical University** <div align="right">Delhi</div>
  B.Tech, Computer Science, 8.0 <div align="right">2010 - 2014</div>
  - 0.1% in Academics; dean's list.

Work Experience

- **Microsoft, Microsoft Azure Core Engineering** *Senior Product Manager, 2020 to present*
  - Conceptualized and executred using the Azure Boards app in Microsoft Teams.
  - Keeping focus on KPIs on engineering domain as per CAP theorem.
  - Building growth strategies & driving product and customer partnerships to help enterprises make most of collaborative consumer experiences with Microsoft Teams - hub for teamwork in Office 365 with chat, calling & meetings and Azure Boards app.
  - Handling and designing scale deliverables and next customer focus; address their usage frictions, conducting user research (50 million devices, 135 zetabatyte data, 10 billion transactions, 1 million devices per square kilometre, 1 million developers)
  - Extensive focus on Containerisation and virtualization technologies, leading user story writing workshops. Virtual machines, infrastructure as a service (IaaS) allowing users to launch general-purpose Microsoft Windows and Linux virtual machines, as well as preconfigured machine images for popular software packages.
  - Use the Azure Boards app in Microsoft Teamshttps://docs.microsoft.com/en-us/azure/devops/boards/integrations/boards-teams?view=azure-devops
  - Enterprise Verticals lead at Microsoft Azure Engineering (Storage) driving product insights & digital transformation for top strategic customers across India & Emerging Market Segments.
  - As part of Azure Storage, working on storage stamps, Azure Virtual Desktop and Low latency computing needs. (https://sigops.org/s/conferences/sosp/2011/current/2011-Cascais/printable/11-calder.pdf).
  - Identify gaps in current data sets and drives onboarding of new data sets.
  - Transforming a pile of servers into a connected cloud.
  - Build and grow healthy teams (i.e. Customer Solution Architects (CSAs) & Customer Engineers (CEs) through talent management, diversity and inclusion, coaching, and career development.

- **The Linux Foundation** *Linux Kernel Intern, 2019*
  - Develop Methods for Tracking Tool Analysis Findings over Time, PaStA (https://github.com/lfd/PaStA)
  - Linux PCI - Eliminate legacy Power Management from PCI drivers
  - Linux Media - V4L2: vivid: add emulation for metadata capture such as an histogram

- **HPX, Mattermost, PSQL** *Google Season of Docs Technical Writer, 2019*
  - HPX (https://hpx.stellar-group.org/)
  - Matthermost (https://community.mattermost.com/core/channels/spec-reviews)
  - PostgresSQL (https://wiki.postgresql.org/wiki/GSoD)

- **GNOME** *GNOME Winter Intern, 2019*
  - https://pipewire.org/
  - GNOME Private Session
  - https://wiki.gnome.org/Internships/2018/Projects/PrivateSession

- **Reliance Jio, Jio Financial Innovation Group** *Product Manager, 2018 to present*

- Jio Financial Services, a part of Jio, is a payment bank and network making everyday banking and payments easy, digital and on mobile. It is a combination of a payment bank, online wallet and a offline merchant network. Involves digital labs, travel and transit, couponing and advertising business. At its end state, it aims to be the largest payment network in the world. Initially I led the development of few of the products as a senior engineer implemented features and also delivered Transit application backend implemented in Java running on JAWS (internal infrastructure) from designing architecture till customer facing application, features can be seen using the application. Involved and leading two major line of business My Jio, Led My Jio Digital Payments, Jio Money, Led Jio Digital Wallet (NFC + Jio Phone Device Integrations) (Beta), Led Travel and Transit (Hotels and Bus) + Involvement in Flight launch (https://www.jio.com/en-in/apps/my-jio, https://www.jio.com/en-in/apps/jio-money) (Fully focused on Product Management, previously involved in Program management as well, Java, NodeJS, JAWS, Shell scripting, Platform Design, JIRA)

- **Mapbox**   *Software Engineer, October 2017 to June 2018*
  - As a part of engineering team at Mapbox I contributed to Creating a system to automate dealing with alarms (owned)
  - Moving all customer and non customer facing services/stacks across Mapbox to secured ECS clusters with 0 downtime. (owned)
  - A metric system to collect/automate collection of historical and any new data to analyse the deploy failures of the services using the underlying system at Mapbox. This also included studying Mapbox's existing data processing services behaviors and regulating the workflow and building a system to stress test the open sourced service pipeline for data processing system to replicate the real services workflow. (owned)
  - Building the system to launch ECS clusters to having only launching a single data processing cluster. This required the separation of AMI building system using new workflows. Fixing existing bugs mostly user-data scripts(AWS), cloud-init scripts and as simple as utilizing yum commands properly.
  - Eligible spot price system (owned the initial version), Analysis and implementation of Intrusion detection prototype, System to run 276 data processing services, Setting up new ECS clusters for combining the data processing services.
  - Being on call and attended/triaged alarms and outages solo even during onboarding period with no or minimal prior knowledge of exisiting services running at Mapbox with finding the root causes, lots of it using reading, updating documentation and queries(initial 6 months was termed to be onboarding to different things in my team). (owned)
  - Also being part of infrastructure team contributing to and supporting different services across Mapbox; AWS and Node.js majorly. (Node.js, JavaScript, AWS, Python, Shell scripting)

- **SAP Labs**   *Software Engineer L3, April 2015 to September 2017*
  - Enabled extensibility in Manage Customer Master Data and Manage Supplier Master Data SAP S/4HANA Fiori applications.
  - Responsible for extensibility in Manage Product Master SAP S/4HANA Fiori application.
  - Responsible for enabling Product Master Hierarchy Type using classification data.
  - Added Article Hierarchy in Product Master Fiori application as a separate reusable SAP UI5, BOPFcomponent and OData service in Manage Product Master SAP S/4HANA Fiori Application.
  - Responsible for enabling row level authorization of CDS views using DCLs for Product Master.
  - Responsbile for CDS Automation using CDS Test Double Framework and ODATA Automation keeping the automated test coverage to 100percent for huge codebase. Also responsible for automation of authorization test for the DCLs protected CDS views.
  - Granted US PATENT on Simplying Data Protection of CDS Based Access
  - JS, ABAP, UI5, HANA, S/4 HANA Cloud, JavaScript and ERP.

- **OWASP Hackademic**   *OWASP Summer Code Sprint Student, July 2015 to September 2015*
  - Contributed to Hackademic Project. The Hackademic Challenges implement realistic scenarios with known vulnerabilities in a safe, controllable environment. Users can attempt to discover and exploit these vulnerabilities in order to learn important concepts of information security through the attacker's perspective. Made the large codebase to follow PSR Standards, fixed bugs, enabled tests to add Travis CI enablement to the repository. (PHP)

- **The Linux Foundation** *Outreachy Intern, December 2014 to March 2015*
  - Contributed to fixing Y2038 bugs, IO drivers, Coccinelle patches in Linux Kernel. In 2001, Chou et al. published a study of common faults in Linux versions 1.0 through 2.4.1. They used a static analyzer to get the results. In 2014, Palix et al. extended this work to cover the 2.6.x versions of the Linux Kernel. They found that the number of common faults decreased from the previous study results, implying better code quality in 2.6.x, Y was still very high. I applied the same analysis to the Linux 3.x versions. The studied period in particular includes the zero-day build testing service in 2012. (C, Git, Coccinelle)

- **Findable.in** *Software Engineer, June 2014 to September 2014*
  - Enabled of different features on the online location based product search website from building the base set up on Django to automatically production scrapped from different partnered website. (Python, Scrapy, BeautifulSoup, Django, Postgres)

- **Qualcomm Inc.** *Interim Engineering Intern, Summer 2013*
  - Developed a log-packet which logs the timing of Enhanced Up link profiled data path handlers. (C, Perl)

- **Indian Institute of Technology, Delhi** *Intern, Summer 2012*
  - Developed a Java Swing application for computing NP Hard Optimal Travel Route between node locations in WISEKAR.

- **Strategy Head, Delhi** *IGDTUW, Compute Society Technical Festival*
  - Organized, ideated all technical events in CSI IGIT Tech Fest 2012 and coordinated, conducted events.

Projects and Open Source

- **Core Maintainer** *2018-Present*
  - Core Team Member of GitHub organisations: WomenWhoCode, PyLadies, Systers Org, Open Source Maintainers on GitHub, Open Source Diversity, Open Science MOOC, MFEM, hyperledger-labs.

- **Nearby NGOs Finder** *2014-Present*
  - All my open source contributions in various organisations can be found on GitHub: tapaswenipathak and on gnome.gitlab.com: tapaswenipathak

- **Nearby NGOs Finder** *2015*
  - Web app for Location based NGO search. (Django, Bootstrap CSS)

- **PyQTopic** *2014*
  - Package to fetch Topics related data from Quora, hosted on Python Package Index with 200+ monthly downloads. (Python)

- **Horoscope API** *2014*
  - A PI to get horoscope related information. Hosted on HerokuApp, based on a package which is hosted on Python Package Index having 600+ monthly downloads. (Python, Flask)

- **WCDMA Enhanced UPlink Timing Log Packet** *Qualcomm Inc., Summer 2013*
  - The objective of the project is to develop a packet which logs the timing of Enhanced Up link profiled data path handlers. The packet is submitted to DIAG when the EUL data path handler end time is reached. Each log packet will have a fixed number of samples specified in the log packet header. This packet is delivered every 200 ms or upon reconfiguration or active set update. We will have a sample for this packet every TTI. (C, Perl)

- **WISEKAR Optimal Travel Route** *IIT Delhi, Summer 2012*
  - Developed a Java Swing application for computing Optimal Travel Route between node locations in WISEKAR. Start and end time stamps on the app are used to retrieve location information about nodes from Wisekar. Brute Force and Simulated Annealing (with a lower time complexity) are used to compute solution to the NP-Hard Travelling Salesman Problem in order to find optimal and near Optimal Travel Route respectively. (Java, JSON, REST calls)

- **Visualizations of CPU Scheduling Algorithms** *Summer 2011*

– Visualizations of CPU Scheduling Algorithms like FCFS, SJF, RR, Multilevel Queue Scheduling, Priority Based Scheduling was done. The user enters the No of processes and other parameters are generated randomly. (C, C Graphics Library)

Volunteer

- **Pass It On Awards Reviewer** *Maintainer, May 2017 to Present*
  – Anita Borg Pass It On Reviewer Award Reviewer.

- **PyLadies Remote** *Maintainer, May 2017 to Present*
  – I gave a class on Data Structures and Algorithms in Python and Scrapping having more than 24K views.

- **Systers VMS** *Maintainer, May 2015 to Present*
  – Systers has many volunteers that offer their skills, time, and commitment to our vision and projects. The Volunteer Management System (VMS) will be useful for volunteer coordinators, volunteer sign-up, tracking hours, and reporting. I also mentor GSOC and GCI participants.

- **Learn IT Girl!** *Mentor and Organizer Feb 2016 to August 2016*
  – Learn IT, Girl! is an international mentorship program, which helps woman accepted as a scholar to learn a new programming language guided by a mentor. I was part of the organizing committee and worked on making the second edition bigger and better. Mentored a student to develop an API for Quora user profile page.

- **Django Girls Workshop** *Coach*
  – Each Django Girls event is a free, one-day workshop for 30-60 people about building their first application using HTML, CSS, Python and Django. I coached Django Girls Bangalore event organized by HackerEarth and Django Girls Pune event organized by RedHat Pune.

- **PyLadies Remote** *Instructor*
  – Gave classes on Introduction to Scraping and Scrapy and Data Structures and Algorithms using Python, organized by PyLadies Remote.

- **Grace Hopper Celebration India (GHCI) 2015** *Committee Member, June 2015 to Dec 2015*
  – As a Grace Hopper Celebration India (GHCI) 2015 Committee Member for the Hackathon Track, I worked with my respective Committee Chairs in strategizing, planning, reviewing and end-to-end implementation of my Track.

- **Grace Hopper Celebration 2015** *Scholarship Application Committee Member, April 2015 to May 2015*
  – Reviewed scholarships application for Grace Hopper Celebrations of Women in Computing 2015.

Skills

- **Computer skills:** Program Management, Product Management, Open Source, C, C++, Linux, Git, Python, JavaScript, HTML, CSS, Latex, Vim. Django. My research interests are operating systems, distributed systems, economics and statistics.

Publications

- Hyperledger Fabric: Develop permissioned blockchain smart contracts, LogRocket, Mar 10, 2022

- How to Build a Command Line (CLI) Tool in Node.jsHow to Build a Command Line (CLI) Tool in Node.js, Adeva, Jan 3, 2022

- Guide to IPFS garbage collectionGuide to IPFS garbage collection LogRocket, Dec 14, 2021

- A Definitive Study of How Remote Indians Learn Smartphone Usage and How More Can be EducatedA Definitive Study of How Remote Indians Learn Smartphone Usage and How More Can be Educated, Reliance Jio Financial Innovation Services for External Publication, Sep 1, 2019

- Existing State of Bus Transit in India and Bringing Mass Indian buses online, Reliance Jio Financial Innovation Services for External Publication, Sep 1, 2019

- Faults in Linux 3.x, USENIX ;login: issue: Spring 2018, Vol. 43, No. 1 Jan 1, 2018

- All About Data Control Language (DCLs)All About Data Control Language (DCLs), SAP Blogs, Jan 1, 2017

- Article Hierarchy in Product MasterArticle Hierarchy in Product Master, SAP Blogs, Jan 1, 2017

- Product Master HierarchyProduct Master Hierarchy, SAP Blogs, Jan 1, 2017

- Systers: Helping women find their potential in code, https://opensource.com, Jan 1, 2017

Research, Patents & Awards

- Granted Patent Simplying Data Protection on CDS Based Access, 10984119 and US 15/888,405 Issued Apr 20, 2021.

- Filed Patent Enabling Optimal Route from Source to Destination Based on User Behavior and Characteristics, India

- Filed Patent Making Package Delivery Reach Remote Areas Using Jio Bus Transit Reducing Carbon Footprint, India

- Dronacharya Award 1.0 For taking organisation wide sessions in Distributed Computing, Linux Kernel, Node, Operating Systems, Open Source, Customer traction, Product metrics during initial days.

- Bringing Indian Remote Hotels Online Using Jio Phone GPS and NFC, No: 253342IN September, 2019

- Deriving Efficient Routing from a Source to Destination using all available modes of Travel in Jio Money, No: 322399IN, September, 2019

- Efficient Enabling Human Less Drone Survey, No: 3221092IN, September 2019

- All About Data Control Language (DCLs), 2017

- Article Hierarchy in Product Master, 2017

- Product Master Hierarchy, 2017

- Fully funded speaker invitation in LambdaConf'19, Colorado; DSConf'19, India; Laravel Conf'19 and few more. Kenote in LambdaConf. All recordings are present online.

- Research article on Faults in Linux 3.x: USENIX; login, Spring 2018.

- Patent Filed on Simplifying Data Protection In CDS Based Access No:170833US01, March, 2018

- Systers: Helping women find their potential in code, OpenSource.com, Oct, 2017

- Systers Pass It On Award, Fall 2015 Winner.

- Invited as a speaker at major conferences like Monitorama'18, PyCon AU'17, Swatantra'17, GitHub CodeConf'16, DjangoCon Europe'15 (Fully funded), PyCon UK'15, Open Source and Feelings'15 (Partially Funded), Linux Con Europe'15 (Fully Funded), SciPy Europe'15, Latinity'15, PyOhio'15, FOSSCON'15.

- Gave lectures in ICFOSS(International Centre for Free and Open Source Software is an autonomous organization set up by the Government of Kerala, India) organized workshop to get women started with contributing to open source projects.

- Invited to attend Django Under The Hood'16, Django Under The Hood'15(Only invite based) with a full scholarship grant.

- Gold Medal Winner in Badminton in annual sports meet of Guru Gobind Singh Indraprastha University, 2010.

- Student Talent Award, Hindi Academy, 2008.

Links, Media

- **Colors and Papers, Art works**
  - Artworks
- **Google Season of Docs, 2019**
  - Contributions
- **Contributions on GitHub**
  - GitHub
- **Contributions on GitLab**
  - GNOME
- **Talks and Sessions**
  - YouTube Query
- **More Useful links on LinkedIn**
  - LinkedIn