Abhishek Vaid

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PROFILE

A former **entrepreneur** who is extremely passionate about **Technology, Software and Business**. I'm currently working as a **Technical Architect / Engineering Manager** at Urban Company, Gurgram, India, where I contribute to consumer growth vertical by **designing**, **architecting**, **optimizing** and maintaining software frameworks and allied implementations. I also manage a very high output team of Senior and Junior Developers in Growth Engineering vertical. Before this, I was a **Co-Founder** and **CTO** at Frrole AI — A Bangalore based startup and an **AI platform that analyzes large scale social data streams to power interesting consumer intelligence use-cases**. I have adequate hands-on experience and deep interest in disciplines like **Large scale Software Implementations, Machine Learning, Data Science and design/implementation of Data driven Platforms**. Before Frrole, I was engaged in various teaching positions, contributed to multiple academic projects and have published few research papers. I am a strong advocate of continuous self-driven growth and therefore an active participant on leading self-learning platforms like **edX, Coursera, Udacity, Udemy, DataCamp and rest**. On average, I spend anywhere between **10 to 15 hours per week** on these platforms to learn new technologies.

EDUCATION

Indian Institute of Information Technology and Management (IIITM), Gwalior — Madhya Pradesh, India
5 Year Integrated Post Graduation in Information Technology (CGPA: **8.34 /10**)   2004–2009

INTERESTS

- Algorithm Design and Data Structures
- Software Design, Architecture and Design Patterns
- Data Science and Large Scale Data Processing
- Machine Learning, NLP, Text Mining
- Distributed and Parallel Processing Systems

HANDS-ON SKILLS

- **Programming languages**: Python, Java, Javascript, Typescript, C++, Scala, GoLang
- **API Toolkits**: NodeJs, Spring Boot, Flask, Django, Akka, GRPC, Swagger, Deno
- **Distributed Processing Frameworks**: Storm, Spark, Hadoop
- **Datascience / ML Toolkits**: PyTorch, TensorFlow, sklearn, Pandas
- **Databases**: MongoDB, ElasticSearch, MySQL, PostgreSql, Redis, Hive
- **Cloud Platforms**: AWS, Google Cloud Platform, Microsoft Azure

WORK PROFILE

09/18' – Present **UrbanClap Technologies** Technical Architect   Bengaluru, India

Urban Company — Urban Company (UC) is a Gurugram (India) based startup currently disrupting and redefining the online home services domain. Currently, UC is the market leader in India and has presence is 4 more countries. At UC, I own the backend engineering for Consumer Growth. My core responsibility includes having to engage directly with product and engineering VPs to define, plan and execute product and engineering roadmap. During this time, I've also written a lot of systems myself and managed teams of various sizes.

- UC Homes/Weddings Content-Portal - A content-rich and navigationally deep discovery platform. I handled the end-to-end execution of this project from start to end. The project took around 8 weeks. The portal supports billions of SEO friendly navigational links and houses 200K+ photos across two categories: UC Homes and UC Weddings. The backend also supports the concept of Ideabook, where a user can curate his/her photos for later viewing.

- Logging and ELK Stack - Architected and implemented Elastic Stack and Logging Funnel. 100 GB / day of system and event logs are being indexed coming from more than 20 micro-services. Deployed a full-scale ELK cluster to support this workload and published libraries for instantiating internal logging funnel across a suite of micro-services. The project was completed in 6 weeks.

- Core SEO API suite - Designed and implemented a new API stack to power UC's SEO use-case. Because of this effort, UC enjoyed top positions in 1st page search results for most of the competitive categories in the business.

- Delivery and Pricing Engine - Architected and implemented a core sub-system to power pricing logic throughout the platform. The challenge here was to model things in a way that it becomes sufficiently easy for business and product owners to experiment and plug complex business rules to power complex

pricing logic. This system powers the current UC pricing logic for some of the most complex categories including "Painters" and "Packer & movers".

– Surge and Advance Payment - Designed and Implemented Surge and Advance Payment construct on our consumer app. This project again requires good modeling to aid complex rules to derive on-they-fly surge signals to affect dynamic and real-time pricing based on demand / supply equivalence.

– Catalog and Search Revamp 2020 - Architected, Designed and delivered on two of the most important projects of 2020 in Growth Engineering. Both Catalog and Search Revamps proved to be significant in removing technical debt and optimize for modern request funnels and App flows across various clients.

– Refactoring - As the only architect at UC, I took key refactoring projects to kill debt and facilitate our micr-service architecture.

12/12' – 07/17' **Frrole AI: Co-founder and CTO** Bengaluru, India

Frrole AI — A Bangalore based **global AI Start-Up** that is redefining consumer intelligence by deploying best-in-class **AI and Machine Learning technologies to real-time large-scale social datasets from multiple networks**. I was involved in defining and shaping all aspects of Frrole ranging from **software architecture to design, development and scaling of our technical infrastructure**. I was also responsible for hiring and setting up our core team.
From a technical standpoint, here are some of the projects that I worked on:

– Frrole DeepSense - An innovative and novel offering that **builds the personality profile and preference models of a potential customer based on their publicly available social footprint**. The platform also engineers predictive attributes about a person's behavior, needs, demographics and possible choices.

– Frrole Consumer Intelligence Platform - A suite of business-ready intelligence applications comprising of Frrole Intelligence APIs and Frrole Scout. The product processes over 50 million data points every day in real-time to provide live api feed to over 30+ clients. The platform also provides historical access to over 20 TB of curated data.

– **Frrole News** - An **autonomous news aggregation engine** powered by real-time analysis of social data streamed from Twitter at a large scale. I designed, developed and scaled the core backend data models, APIs and intelligence layer.

08/09' – 04/12' **Head-Coordinator** and **Lecturer** at LPU Jalandhar, India

I was responsible for managing the entire department comprising of **28 faculty members and 500 enrolled students**. I was directly responsible for **teaching quality**, **curriculum design**, and **pedagogical innovations**. I also **designed** and **instructed courses** on subjects like Data Mining, Distributed Systems, Data Structures, Linux, OOPS, Multimedia Communication, Java Programming, and Algorithms.

05/12' – 12/12' **Learning Break** New Delhi, India

Took a study break to augment my knowledge and enhance my skill set by pursuing relevant coursework (MOOC- Massively Open Online Courses) on platforms like **Coursera**, **edX**, and **Udacity**. Overall, I completed **30 certified courses** in 8 months.

PROJECTS

08/08' – 08/09' Master Thesis — **"Performance Analysis of Novel Evolutionary Algorithm Operators: An Implementation On Bounded Diameter Spanning Tree Problem"**. The research results were subsequently published in Proceedings of International Conference on Contemporary Computing.

01/09' – 06/09' **"Knowledge Discovery in Databases Using Evolutionary Algorithms"**, to understand the strengths & weaknesses of using Multi-Objective Evolutionary Algorithms to solve association rule mining problems.

07/08' – 08/08' Developed an AI technique based on **Self Organizing Feature Maps** to automate the task of question selection in generating automatic online Question Paper Sets for various competitive examinations.

SOME PUBLICATIONS

- **"Association Rule Mining Using Multi-objective Genetic Algorithms: Strengths and Challenges"** presented at World Congress on Nature and Biologically Inspired Computing, 2009, Coimbatore.

- **"Multidimensional Association Rules from Large Weather Data Set: A Proposed Methodology"** accepted in Proceedings of International Conference on Data Mining (DMIN), 2008, Las Vegas, USA.

- **"Automated Question Selection for Online Tests: A Novel Approach"** presented at International Congress on Pervasive Computing & Management, 2008, New Delhi, India.