Mathuranath B

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A seasoned engineer with substantial experience in building performant software systems using microservices, batch systems, and web-applications with Java, JavaScript/React ecosystem of frameworks. Talented in designing realtime systems, modelled APIs and Data on relational, NoSQL databases working in conjunction with distributed caches. Quite driven towards execution, and passionate about building software systems that are highly available, maintainable and reliable by design.

SKILLS

- **Java, Spring (Batch, API)**
- **C/C++, Python**
- **JavaScript/TypeScript**
- **Node.js, React**
- **NextJS, Remix, Express**
- **REST, GraphQL, Protobuf**

- **Postgres, Oracle, SQLite**
- **BigQuery, Hadoop, Couchbase**
- **Redis, Juno**
- **ActiveMQ, RabbitMQ**
- **GCP, AWS – Compute, Data**
- **GitHub, Jenkins CI/CD, Docker**

AI/ML Skills
- **Feature Engg, Model Training**
- **Vector Embedding, Indexing**
- **RAG, Graph integration with LLM**
- **LLM integrations with MCP**

- **Architecture & Design**
- **Prototyping**
- **Batch, Event driven, Real-time**
- **Data Modelling, dist. caching**
- **Performance & Instrumentation**

- **Team leadership**
- **Mentoring**
- **Communication**
- **Cross-team collaboration**
- **Ambiguity Resolution**

WORK EXPERIENCE

Staff Software Engineer, PayPal, Chennai, India   April 2022 – Present

- Researched and built a Vector similarity matching to screen customers against known Fraudulent/Flagged/Terrorist/PEP Entities which was earlier based on text similarity. This was built on new age AI technologies
- Led a crossfunctional team to build a List Search system with new age tech using Next JS, React on frontend with a mixed backend of Lucene indexes, Oracle databases.
- Led a team of five to eliminate full tool licenses of LexisNexis, Dun & Bradstreet, Thomson Reuters products by integrating the APIs to bring a seamless and uniform UI for back-office investigations.
- Led our team to build a real-time integration with external vendors for compliance verification of PayPal crypto transactions.
- Designed and Architected Customer Insights Platform with UI bringing the information from accounts, users, transactions, merchants, financial instruments, cases, multiple legacy platforms, support chats other data from PayPal Inc. to give a 360 of a customer
- Contributed to scaling the team through hiring and mentoring, including close 1:1 internship coaching that converted candidates to full-time roles

Senior Software Engineer, PayPal, India   April 2019 – March 2022

- Built a real-time distributed data caching for payments compliance to bring down the overall payments and checkout time
- Designed and developed several microservices (REST, GraphQL) hosting APIs of customers, transactions data sitting on a distributed datalake hosting PayPal, Venmo, Xoom and other subsidiaries of PayPal Inc.

Software Engineer II, PayPal, India   April 2017 – March 2019

- Designed and developed APIs on NoSQL databases for compliance platform to liaise with regulators (OFAC, FINTRAC, AUSTRAC) for uploading the disclosures of completed investigations
- Consolidated the case management views of the subsidiaries of PayPal into a single view, bringing down the average case handling time by 3-5 times
- Migrated legacy applications in C++, Java to a company standard Java framework, brining instrumentation, logging, TLS 1.2, improving maintainability, upgradability and security

IT Analyst, Digitate (TCS), Pune, India   October 2016 – March 2017

- Built ML Models to find out exceptions in invoices and payments in P2P flows for Manufacturing and Automotive companies (Dow chemicals, Exxon Mobil etc.)
- Designed and developed an analytics framework built upon hybrid databases (BigData & RDBMS) supporting Machine Learning Algorithms written in Java, Scala and Python

Systems Engineer, Digitate (TCS), India   July 2013 – September 2016

- Fully owned design, development of a system to interface with all the external ticketing systems; integrated ServiceNow, Remedy, Salesforce, Internal–IT etc.
- Completely owned the research, analysis, design and development of building a flexible MS Windows remote connector retaining LIVE sessions, which enabled the automation flows to operate on all the Windows Servers running OS version above Windows Server 2000. A game–changer for the Ignio IT Automation Platform which until then had only supported Linux, *Nix connectors using SSH
- Developed a niche SMS Notification system using GSM modems and Samsung Phones, learnt and used an arcane "Hayes AT command set" instructions sent via Serial/COM Ports

EDUCATION

Bachelor of Technology, Mechatronics   **July 2009 – May 2013**
SASTRA University, Thanjavur   GPA: 8.58

Higher Secondary   **2007–2009**
Kendriya Vidyalaya No.1, Madurai   Finals: 92%

LANGUAGES KNOWN

English	Full Professional Fluency
Hindi	Native Fluency
Sourashtra	Native Fluency
Tamil	Native Fluency

ACHIEVEMENTS AND ACCOLADES

Star of the Quarter, TRDDC (TCS)   **Q4, 2015**
Star Performer of the Year, TRDDC (TCS)   **2014–2015**
Rashtrapathi Scout, New Delhi   **2009**