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Abil N George

OBJECTIVE

To secure a promising, successful, and challenging career in a reputed organization where my knowledge and skill can be effectively applied, enabling me to explore myself fully and realize my full potential.

EDUCATION

2013-2015 **Master of Technology**, *CGPA :8.72*
Indian Institute of Technology Madras, India. `http://www.iitm.ac.in`
Concentration: Computer Science & Engineering.
Specialization: Machine Learning (Deep Neural Networks)

2009-2013 **Bachelor of Technology**, *CGPA : 8.64*
University of Kerala.
College Of Engineering, Trivandrum, Kerala, India. `http://www.cet.ac.in`
Concentration: Computer Science & Engineering.

2009 **All India Senior School Certificate Examination**, *Score : 88.80%*
Central Board of Secondary Education.
Jawahar Navodaya Vidyalaya, Pathanamthitta. `http://www.navodaya.nic.in`
JNV are Indian schools for talented students and form a part of the system of gifted education.

2007 **All India Secondary School Examination**, *Score :89.60%*
Central Board of Secondary Education.
Institution : Jawahar Navodaya Vidyalaya, Pathanamthitta.

EXPERIENCE

June 2020 - **MTS 1, Software Engineer**, *PayPal, Bangalore*

Cross Property Enterprise Data Lake - Leading a team whose primary objective is to collect data from multiple subsidiaries of PayPal and transform and store it in a common model for consumption by Operational (Reporting/Finance) and Analytics Teams.

Enterprise Data Quality - Developed a Platform that enforced Data Quality across multiple teams and data sources (Oracle, Teradata, BigQuery, Hive, etc..) in PayPal. `http://bit.ly/paypal-ref`. Uses Hadoop (Spark), BigQuery, Hive

PayPal Inc Reporting - Lead a team that created a Framework for consolidating reporting across multiple subsidiaries of PayPal (Braintree, Venmo, Hyperwallet) using Apache Spark.

May 2019 - June 2020 **Software Engineer 3**, *PayPal, Bangalore*

PayPal Reporting - *Re-architecting PayPal Core Reporting*. Designed a Spark-based system for merchant reporting. Core responsibilities included leading a five-member team that migrated Spring/Oracle-based Micro-services reporting stack to the Spark stack. Able to deliver monthly reports to 60 Million PayPal merchants by the first of every month (The old SLA was 10^{th} of the month)

Jun 2016 - May 2019 **Software Engineer 2**, *PayPal, Bangalore*

Merchant Reporting - Worked in multiple micro-services which generate Daily/Monthly Reports to Millions of PayPal Merchants. Uses Java, Spring and Hibernate Framework, and SQL.

PayPal Sync APIs - Developed REST API which enables PayPal Customers to access his/her transaction data and derive insights by sharing it with third parties. Implemented using Java & Scala. Uses Hadoop (Spark), Kafka & Elastic Search

Jan 2016 - Jun 2016 **Software Engineer**, *PayPal, Bangalore*

Redesign of *PayPal Resolution Center* User interface - Developed a reusable framework that enables adding new flow within one day by just changing a few configurations. Implemented using Node.js, React.js & Kraken.js

July 2015 - Jan 2016 **Software Engineer**, *PayPal, Chennai*

On-boarding API Services - which provide REST APIs to orchestrate onboarding of new merchants into the PayPal & Braintree ecosystem. Implemented using Java & spring

Internships

2012-Summer **Software Development Engineer-Intern**, *Amazon.com, Chennai*

Implemented an effective framework for automated testing of Kindle Direct Publishing (KDP) Web Interface.

2011-12 **RSMT Algorithm Implementation-Intern**, *GES Infotek, Trivandrum*

The *Rectilinear Steiner Tree Problem (RSMT)* asks for a minimum length tree that interconnects a given set of points by only horizontal and vertical line segments, enabling the use of extra points. Implemented *FDP (Fast Dynamic Programming) Algorithm* For RSMT by *Ganley & Cohoon* which is based on *Hwang's theorem*

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Publications & Patents

2020 **Improvements to distributed systems with deep pagination**, *US-11599583-B2*

`https://patents.google.com/patent/US11599583B2`

The patent describes the deep pagination issue in distributed databases and the solution to the issue while extracting whole data for given search criteria.

TECHNICAL SKILLS

Programming Languages	C, C++, Java, Scala, Python, Bash, HTML, JavaScript, Node.js, *preliminary knowledge:* PHP, R, CSS
Mobile SDK	Android SDK, iOS *(preliminary knowledge)*
Operating Systems	GNU/Linux, Mac OS X, Microsoft Windows
Databases	MySQL, Oracle DB, BigQuery, Elastic-Search, MongoDB *(preliminary knowledge)*
Frameworks	Apache spark, Spring, Hibernate, Express.js
Cloud Platforms	Google Cloud Platform, Amazon Web Services *(preliminary knowledge)*

PROJECTS

Academic Projects

2014-15 **Event Spotting in Video using DNN features**,
https://github.com/abilng/Mtech-Thesis, *Python, Bash*,
Guide: Dr. Hema A. Murthy, Professor, IIT Madras
Images and videos have become ubiquitous on the internet, which has encouraged the development of algorithms for various applications, including search and summarization. The objective is to spot events in videos based on video queries, using DNN features. We have also found a novel method for event recognition in video using Convolutional Neural Networks with pre-processed input.

2014 **Python-DNN - Tool-kit for Deep Neural Network**,
https://github.com/IITM-DONLAB/python-dnn, *Python, JSON*,
Guide: Dr. Hema A. Murthy, Professor, IIT Madras
Python-DNN is a tool-kit for Deep Neural Networks which can run on GPU as well as CPU. It supports CNN, DBN, SDA, and many others. *Python-DNN* can be easily configurable by *JSON*. It can be used also as a Python library.

2013 **Machine Parsable RESTfull web API**,
https://github.com/abilng/sMash.it, *JavaScript, Python, Node.js*,
Guide: Dr. Abdul Nizar, Professor, College of Engineering Trivandrum
A RESTful web API is a web API implemented using *HTTP* and the principles of *REST (Representational State Transfer)*. By using a *Microformats*-like grammar that helps to annotate semantics into the already existing documentation of REST services doubling them as machine-readable descriptions. Moreover, these basic annotations help to link between RESTful services in the same domain and enable automatic discovery and composition (creating *Mashups*).

Other Projects

2012 **ARIA-Ethernet based public announcement system**,
https://github.com/AriaCET/,
Guide: Dr. Rajasree M. S, Professor, College of Engineering Trivandrum,
. *Python (flask), JavaScript, HTML, Bash, Qt (Python)*
ARIA *(Asterisk RadIo Architecture)* is an attempt to build a public announcement system over local network which is flexible. ARIA uses VoIP (Voice over IP) and SIP (Session Initiation Protocol). Originally developed for in house use at College of Engineering, Trivandrum (CET). Funded by *Center For Engineering Research And Development (CERD), Govt. Of Kerala*.