### Latha Samala

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### Professional Highlights

- Experience in development of production ready software.
  - o Enterprise software development (Capture / Document Management Solutions)
  - o Applied ML (Image Processing / Computer Vision)
  - o ML Ops (Frameworks and Tools)
- Experience in collaborating with Product Managers in defining the technical requirements for identified business requirements. Proc-actively find scope of enhancements to make products competitive; includes doing research and suggesting solutions with proof of concepts.
- Experience in collaborating with Sales for providing insight into developed products and taking sales leads to enhance products for creating new opportunities.

### **Professional Accomplishments**

2 US Patents (10,776,903 / Sep 2020, 0327360 / Feb 2021) related to Image Processing with Neural Network.

#### **Skills** Programming

- C++ (ATL, MFC, C++/CLI), ASP.Net, VB, Delphi, C#, Java (Visual Studio, JetBrains tools).
- Agile methodologies, Test Driven Development, CI/CD, Deploy with Docker, K8s.
- Deployment of microservices/rest api (MLFlow, Seldon-Core, k8s, istio).

#### Data Science / ML

- Apply Machine Learning for processing unstructured data.
- Image Processing, Machine Learning, Deep Learning with TensorFlow, OpenCV, Python.
- Frame ML problems, create, prepare and process data, Develop/tune ML models, Run experiments, Automate & orchestrate ML pipelines.

#### Research

- Motivation: Automate software to be intelligent.
- Evaluate Open Source Software, ML Libraries, Models and Tools to build Enterprise Solutions.

#### Experience

Lead Software Engineer, OpenText, San Mateo, CA (Jan 2019 to present)

Content Management System & Analytics

• Enterprise Risk(PII etc) Management Software - Sole responsibility to develop core functionality (ocr/IP) and Java spring boot microservices for audio (speech to text - deepspeech/wav2letter), image, video (classification etc.).

- Big Data Analytics Framework Sole responsibility to develop deployment infrastructure for ML Models as RestServices - OneClick Deployment of spark/keras/sklearn models with MLFlow, Seldon-Core, Kubernetes, istio.
- Self-Initiated Research Designed and implemented solutions for image clustering, similarity search using open source tools (vgg16, Annoy, FAISS). Map technology to different products to enhance capabilities with image and text analytics. Impact on processing time for TAR products.
- Self-Initiated Research Designed and implemented Neural Network for Signature Verification Fraud detection.
- Self-Initiated Research Apply open sources for Layout Analysis of images, Interpretability of Deep Learning models- Metadata extraction of big data ETL.

# **Principal Software Engineer, OpenText,** San Mateo, CA (Jan 2017 to Dec 2019) *Document & Content Management System & Analytics*

- EDiscovery Classify images as having signature or not with Deep Learning; Sole responsibility for creating/gathering data for training and testing data, developing the classification network, tests for trained models in python; inference in java.
- Capture Using Deep Learning features for Image analysis; Extend existing segmentation network to multiple use cases. Pre-processing of images for OCR. Prepare, train and test data to evaluate, identify and implement accuracy measurement metrics. Integrate the network into the product as rest api. Setup CI for all deliverables, write automated tests for the entire stack. Deliver end-end solution with neural network integrated into doc capture solution.

## **Principal Software Engineer, EMC Corporation,** Santa Clara, CA (Sep 2007 to Jan 2017) *Document Management System-Captiva*

- Develop data generation and evaluation tools for deep learning CNN.
- Port existing Delphi base code to C# with improvements for Machine Learning algorithms which include image classification and expert systems.
- Creating UI infrastructure to use on WPF and Silverlight platforms. Responsibility to design functional candidate architecture and technical specifications.
- Develop management tools for flow orchestration framework.

# **Principal Software Engineer, Kofax Inc.,** San Diego, CA (Mar 2005 to Sep 2007) *Document Management System*

Responsible to design & develop key features for Windows application using Composite
UI Application Block with C#. C# programming interface for C++ classification
algorithm: UI to clean up the data with training set for SVM learning and evaluate
performance.

# **Senior Software Engineer, Rydex Investments**, Rockville, MD (May 2004 to Mar 2005) *Data Warehousing project*

• Sole responsibility to design, develop and deploy data cleanup tool implementation with SQL Server, ASP.Net and C #. Tool for data extraction, manipulation and cleaning relational data from various enterprise applications that is collected in warehouses.

**Software Consultant, AspenTech** - San Diego CA (Dec 2000 to May 2004)

Supply Chain Management Application

• Implemented various modules of Windows applications with Visual C++ (MFC). Performance analysis for desktop applications. Sole responsibility for localization and internationalization of desktop and web applications.

**Software Consultant, Reynolds & Reynolds -** Dayton OH (Oct 1997 to Nov 2000) *Automotive Business Application* 

• Implemented Web-Based Software for Enterprise Applications. Programming with Visual C++ (ATL), Visual Basic, MS SQL Server, IIS, MTS, ASP, DHTML, VB Script, J Script, RDS and Remote Scripting.

#### **Education**

- MLOps Specialization, Coursera In progress
- NLP Specialization Certificate, Coursera In progress
- Deep Learning Certificate, Coursera
- Data Mining for Business Applications, UC San Diego Extension
- Bachelor of Technology in Electronics & Communications Engineering, Jawaharlal Nehru Technological University, Hyderabad, India

**Public links** 

https://lathasamala.medium.com/intelligent-automation-624c09ae45b9 https://github.com/latha-ai/

Recommendations

At linkedin

http://www.linkedin.com/in/LathaSamala