|  |
| --- |
| **Sri Harsha Konuru**  [harshasatyakumar@gmail.com](mailto:harshasatyakumar@gmail.com)  https://www.linkedin.com/in/sriharshakonuru/ |
| * Artificial Intelligence professional with 4 years of combined experience in Agri-tech, bio-medical, IOT, and predictive analytics. * Strong research professional with a **Master of Science (M.S.)** focused in Computer Engineering from University of Maryland Baltimore County * Currently, working as **Deep learning Engineer** for Agricxlab Pvt LTD * Attendee of **Google Launchpad**, Bengaluru 2019 |
| **EDUCATION** |
| **University of Maryland Baltimore County, Baltimore, Maryland, USA**   * Master of Science (M.S.) in Computer Engineering Aug 2015 – July 2017   + Cumulative GPA: 3.2 /4.0   + Major in Embedded hardware based Artificial intelligence   **GITAM University, Hyderabad**   * Bachelor of Technology ( B.Tech) in Electronics and Communication Engineering June 2011 – May 2015   + Cumulative GPA: 8.0 / 10.0 |
| **SKILLS** |
| **Languages (Proficient in)**: Python, C, C++, CUDA (Parallel and distributed computing)  **Languages (Familiar with)**:R, Scala, MPI (Message Passing Interface), SQL  **Other Tools/languages:** TensorFlow, PySpark, Keras, Scikit-learn, Numpy, Pandas, Bash shell scripting  **Algorithms**: Convolutional Neural network, Wavelet transform, Semantic segmentation, LSTM, Stacked autoencoders, Residual NN, ICA, SVM, PCA, Evolutionary algorithm, Genetic programming, Multi instance learning, Ensembled models.  **Software Skills**: AWS EC2, GCP, Microsoft Visual Studio, Git (Git and Mercury repositories), Docker, MATLAB |
| **WORK EXPERIENCE**  **Deep Learning Engineer - Computer Vision Nov 2018 - Present**  ***Agricxlab Pvt LTD***   * Responsible for monitoring and identifying ways to improve model performance * Identify emerging methods, introduce creative approaches from research ideas (NIPS/ICCV research papers) and turning state-of-art ideas into production * Manage computer vision algorithms integration computer on Android SDK * Developed end-to-end machine learning pipeline including data collection, data extraction, automated labelling, training of deep learning models and deployment. * Deployed data parallel and model parallel models for optimized performance at inference. * Designed a framework for visualization of deep learning intermediate layers in keras   **RESEARCH UNDERTAKEN**   * **Unsupervised Monocular Depth Estimation –** Infer dense depth from single color input image * **Color consistency –** Correcting a color image that has been improperly white balanced * **Abstract length Encoding Algorithm –** Length and width approximation using robotic vision libraries * **Data AuGmeNtation using GAN –** Generate synthetic image pairs to oversample minority classes * **Color Augmentation using Palletenet –** Generated small variations of colors through color augmentation   **PATENTS AND PUBLICATIONS**   * **Authored 2 patents(pending);** which are Rice Grain Quality Analyzer and System and Turmeric rhizome segregator   **Data Scientist Sept 2018 – Jan 2019**  ***BCEZ Technologies Pvt Ltd.***  **IOT based Home automation using Magic stick and Alexa**   * Used Amazon alexa speech API for integration of IOT using AWS Lambda, AWS IOT and mqtt protocol. * Trained speech commands using LSTM for different functionality of IOT (custom speech recognition).   **Research Assistant – Artificial Intelligence July 2017 – July 2018**  ***Lobo Lab***    **GPU Optimization of Reverse Engineering Planarian Regeneration**   * Designed architecture of Multi GPU Single Machine system (cluster of 4 V100’s) for implementation of several machine learning algorithms * Achieved 60x speedup implementing evolutionary algorithm for regulatory networks (an approach of building dynamic mathematical models) in the MGSM architecture * Implemented hierarchy of parallelization’s using streams for inter-GPU and threads at intra-GPU mainly focusing on data level parallelization of multiple channels of data * Utilized Qt library for efficient visualization of the evolutionary algorithms through populated generations * Key aspect of this project was implementation of CUDA with integrated OOPS paradigm   **Technology**: CUDA with object-oriented C++, Microsoft Visual Studio, Evolutionary algorithm, docker.  **Graduate Research Assistant May 2016- July 2017**  ***Energy Efficient High Performance Computing, UMBC***   * Worked on deploying machine learning models on biomedical data (EEG, Heart rate)   **RESEARCH PROJECTS**  **An EEG Artifact Identification Embedded Hardware using ICA and Multi-Instance Learning**   * A novel software-hardware system that uses a weak supervisory signal to indicate that some noise is occurring. * The EEG data is decomposed into independent components using ICA, and these components form bags that are labeled and classified by a multi- instance learning algorithm   **Technology**: Python 3 using numpy and scikit-learn packages, C++, CUDA for parallel implementation, R, Matlab, Machine Learning (Independent Component Analysis, Principal Component Analysis, Multi-Instance learning, SVM)  **Technology**: C, CUDA, MPI (multi-threaded program which runs on multiple cores), pyCUDA, Matlab, Machine Learning (SVM, KNN). |
| **AWARDS & CERTIFICATIONS** |
| **Innovator at Agricx** for out-of-box ideas contribution to the product  **Neural network and deep learning, Improving deep neural networks, Structuring Machine learning projects and Convolutional neural networks.**  License4DHMJ527YJZT sponsored by Deeplearning.ai and coursera |
| **PERSONAL DOISSER** |
| Date of Birth: 15 September 1994  Contact: +91- 9666666101  Passport Details: K5526278 valid till 2022 |
| I hereby declare that the details furnished above are true to best of my knowledge.    Sri Harsha Satya Kumar Konuru |