# Arun Gopal Govindaswamy

# **Data Science Professional**

Data science professional experienced in data analysis, predictive modeling, computer vision and machine learning. Intrigued by challenges in data science and seeking to leverage statistical techniques to address them. Passionate about data driven decision making, pattern recognition and predictive modeling. Achievements include research work in bioinformatics, computer vision and deep learning. Seeking full time opportunities in computer vision and deep learning space.

# **Work History**

#### Mar 2019 Current

# Graduate Research Assistant, DePaul University

- Worked on different research projects applying image processing, machine learning, deep learning, and computer vision techniques and published 3 scientific papers.
- Conducted research from generation of ideas, literature surveying, implementation of methods, collaboration with different stakeholders and publishing of papers.

#### Aug 2019 -Current

# IT Support Specialist, DePaul University

- Maintain the department's web page using HTML and SharePoint.
- Communicate with different non-technical teams in documenting processes and procedures for future support resulting in superior technical experience across department.

#### Dec 2017 -Feb 2019

# DevOps Engineer, Cognizant Technologies

- Built and maintained Continuous Integration and Continuous Delivery pipelines
  following agile methodology resulting in prompt delivery of project requirements
  using various tools like Jenkins, IBM UDeploy.
- Developed automation and deployment utilities tasks using different programming and scripting languages like **python**, **shell**, **groovy**, and **bash**.
- Assisted team with analytics and visualization using ElasticSearch and Kibana.
  Gained experience with cloud infrastructures like AWS web services and containers like Kubernetes.

# **Education**

#### Mar 2019 -Current

Master of Science: Data Science

DePaul University - Chicago (GPA: 4.0/4.0)

--Graduate Research Assistantship Awardee--- Graduate Ambassador of the Data Science Program --- Campus Lead to India Student Hub USA

#### Jul 2013 -May 2017

#### B. Tech: Computer Science and Engineering

Abdur Rahman University - Chennai, India (GPA: 3.44/4.00)

---Elected Joint Secretary of Computer Science Department --- Elected Vice-captain of the University Cricket Team

# **Projects**

#### Sep 2020 -Current

# Hybrid models in computer vision applications

• Current research work on convolutional neural networks altering its architecture and building hybrid models making the deep learning model both time and computationally efficient. Earlier work has already been published at ADIP 2020.

# Jan 2020– Aug 2020

# Gaze Recognition in patient-physician video interactions using computer vision and machine learning techniques

• Research project focused on identifying the gaze of the physician in video interactions through automated machine learning techniques. Built an annotation tool capable of reducing the human labor in manual annotations.

(+ 6 more projects)

# **Publications**

- CNN as a feature extractor in gaze recognition, AICCC 2020.
- Predicting physician gaze in clinical settings using optical flow and positioning, ICVNZ 2020.
- Measurement of similarity in C. Elegans healthspan using dynamic time warping on movement features, BICOB 2020.

# **Contact**

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#### **Phone**

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#### E-mail

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#### Portfolio

https://cheeku18.github.io

#### LinkedIn

www.linkedin.com/in/cheeku18/

#### GitHub

https://github.com/cheeku18

# **Skills**

#### **Cloud Infrastructure**

-- AWS, Google Cloud

#### CI/CD Tools

-- Jenkins, IBM UDeploy, GitHub

#### **Data Visualization**

-- Tableau, Kibana, GGPlot2, matplotlib

#### **Predictive Modeling**

-- Supervised, unsupervised and semisupervised learning, ensemble learning, decision trees, active learning

#### **Data Analysis**

-- Regression and Classification models, PCA, Factor and Cluster Analysis

## **Programming Languages**

-- C, Python, R, JAVA, MATLAB

## **Deep Learning**

--CNN, RNN, ANN, GAN

#### **Machine Vision**

-- Segmentation, Edge Detection, Object Detection, Fourier and Wavelet transformations, OpenCV

#### **Big Data**

-- Hadoop, Spark, MapReduce, SQL, HIVE, PIG

# References

- 1. <u>Jacob Furst</u>, Professor and Director, School of Computing jfurst@cdm.depaul.edu, 312-362-5158
- 2. <u>Daniela S. Raicu</u>, Associate Provost for Research, DePaul University dstan@cdm.depaul.edu, 312-362-5512