

Arun Gopal Govindaswamy

Data Science Graduate Student

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 using image processing and data mining. Seeking summer internship to further my knowledge.

Work History

Mar 2019- Current Graduate Research Assistant, *DePaul University*

- Currently, working on two research projects - one, aiming to predict the progression of age-related macular degeneration, a common eye disease in the elderly using **image processing** and **predictive modelling** techniques, two – aiming to improve patient - physician interaction in primary care settings by extracting useful information from raw data using **computer vision** and **machine learning** models.
- Previous work in ageing research which studies the impact of lifespan extension on health using different **data analysis** techniques like **dynamic time warping (DTW)**, **regression** and **time series** analysis. This work was **published** in a BICOB 2020.

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**.
- Coded and scripted various tasks during different stages of the project using different programming and scripting languages like **python**, **shell**, **groovy**, and **bash**.
- Helped the team with analytics and visualization using **ElasticSearch** and **Kibana**. Gained basic experience working 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)

---Awarded Graduate Research Assistantship --- 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

Jan 2019 - Current Predicting progression in AMD using Drusen

- Aiming to predict the progression of age-related macular degeneration by identifying pathologies in the retinal scan using segmentation, extracting features using image analysis and further building predictive models on the features to aid AMD research.

Jan 2019 - Current Information extraction from primary care visits to support patient – provider interactions

- Research project currently focused on improving the robustness of existing machine learning AdaBoost model using active learning techniques and a novel idea of including the confidence of the class labels as a predictor in the predictive model.

(+ 3 more projects)

Publications

- Measurement of similarity in C. Elegans healthspan using dynamic time warping on movement features, BICOB 2020, San Francisco

Contact

Address

Chicago, Illinois 60613

Phone

312 927 6076

E-mail

aarunkarthii@gmail.com

Portfolio

<https://cheeku18.github.io>

LinkedIn

www.linkedin.com/in/cheeku18/

GitHub

<https://github.com/cheeku18>

Skills

Data Analysis

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

Data Visualization

-- Tableau, Kibana, GGPlot2, matplotlib

Predictive Modeling

-- Supervised, unsupervised and semi-supervised learning, ensemble learning, decision trees, active learning

Programming Languages

-- C, Python, R, JAVA, MATLAB

Scripting

-- HTML, UNIX, bash, Shell

Image Processing

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

Big Data

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

Cloud Infrastructure

-- AWS, Google Cloud

DevOps Tools

-- Jenkins, IBM UDeploy, Kubernetes

Certifications

- Certified Data Scientist with R
- Business Analyst using R
- Statistical Learning from Stanford
- Machine Learning 201
- Machine Learning from Stanford