# Chethana Thondebhavi Shantha Kumar

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## Objective

Passionate and results-driven data scientist with a strong background in Computer Science Engineering and a Master's in Data Science. Skilled in data mining, deep learning, and data analytics, with hands-on experience using Python, Power-BI, and Tableau. Adept at transforming complex data into actionable insights to drive innovation and efficiency. Seeking to contribute my expertise to cutting-edge data-driven solutions.

## Education

**University of Arizona** — Expected graduation date: May 2025
Masters in Data Science
Relevant Courses: Data Analysis and Visualization, Data Mining, AI, ML, Neural Networks, NLP, SQL database, Data Warehousing.

**Dayanada Sagar Academy Of Technology and Management** — Graduation date: May 2023
BE in Computer Science Engineering
Relevant Courses: Big Data Analytics, C, Python, DBMS, Wed development, NoSQL Databases, Digital Image Processing, Data Structures and Applications, Data Mining and Wearhousing.

## Skills & Certifications

**Skills:** Power-BI, Tableau, Python, JavaScript, SQL, HTML, CSS, Data Analysis, Machine Learning, Deep Learning, Git, MS Office (Excel, Word, PowerPoint), Power-BI, Tableau

**Certifications:** Beginner to advanced python programming, AWS-Cloud Foundation, Business Analytics training, Google Data Analytics professional

## Experience

**Tequed Labs** — Aug. 2022-Sep. 2022
**Software Engineering Intern** — PHP, JavaScript, SQL Server, HTML, CSS, Bootstrap, jQuery
- Developed dynamic web applications and streamlined SQL databases to enhance user experience and support scalable operations.
- Demonstrated strong problem-solving skills and the ability to work independently on technical tasks.

**Hearthealth Technologies Private Limited** — Oct. 2022-May. 2023
*AI/ML Intern* — Python, Deep Learning, Neural Networks
- Spearheaded the design of an advanced image segmentation model using Fully Convolutional Neural Networks (FCNNs), which significantly enhanced diagnostic accuracy for the OneCardio product.
- Implemented the model effectively, optimizing performance and reliability in real-world diagnostic applications, thereby elevating the overall capabilities of the healthcare technology.
- Managed research protocols and maintained precise data records and, Assisted in organizing and processing data, ensuring accuracy and attention to detail.

## Projects

**Segmentation and Refinement of Carotid Artery** — May. 2023
*Image Prepossessing and Image segmentation using deep learning* — Python
- Spearheaded a project developing an advanced U-Net model with dropout layers, achieving a dice coefficient of 87.86% after 300 epochs for enhanced carotid artery segmentation accuracy.
- Optimized performance using two datasets with 1,100 images, increasing the dice score from 72.62% to 80.84
- Published Survey Paper and Research Paper on this project, providing valuable insights to the field of medical image segmentation.

**Sentiment Analysis** — May. 2024
*Analysing Emotional Dynamics of Social Media* — Python
- Developed LSTM networks achieving 99.61% training accuracy and 88.2% test accuracy for classifying emotions in tweets.
- Implemented dropout layers to enhance real-time emotion detection, mitigating overfitting and improving model reliability and, achieved an average loss of 0.0097 and validation accuracy of 89.25%, demonstrating robust emotion classification.

**Predicting abnormal climate in Arizona**                                               Nov. 2023

Evaluation of unusual climate situations in Arizona                                       Python, HTML

- Directed the development and deployment of LSTM and feedforward neural networks, achieving a mean absolute error of 0.5263 and precise temperature predictions, enhancing model accuracy by 12% through meticulous hyper-parameter tuning.
- Collaborated with a team to preprocess data and validate models, utilizing K-means clustering to identify three distinct weather patterns. Leveraged historical weather data from 1970 to 2023, ensuring precise climate predictions and publishing comprehensive findings.

**Alien Encounters**                                                                     Oct. 2023

Visualization of UFO Sightings around the world                                          R, HTML, CSS, JavaScript

- Managed a comprehensive data analysis project on UFO sightings, employing ggplot for interactive visualizations, which substantially increased public engagement and provided new insights into sighting trends.
- Created interactive and informative plots using ggplot to show the number of UFO sightings on the world map and how the trends vary over the years.

**World happiness report**                                                               Dec. 2023

A journey through world happiness:)                                                      R, HTML, CSS, JavaScript

- Created an interactive Shiny App to distill the complex data of the World Happiness Report into user-friendly visuals, significantly boosting user interaction and insight into global happiness trends.

**NLP Statistics and web scrapping**                                    Python, HTML, CSS, JavaScript Dec. 2023

- Developed a sophisticated web application for NLP statistics comparison, enhancing data depth and accuracy, which greatly improved content strategies for health information dissemination.

**Suicide analysis dashboard**                                          Power-BI, MS Excel, Python April. 2023

- Created comprehensive visualizations using Power-BI to uncover critical insights into suicide data trends.
- Performed Data cleaning and validation on Microsoft Excel and handled outliers using pandas and matplotlib on Python and created a Dashboard using Power-BI for Suicides in India dataset.