Ramakrishnan Sundareswaran

+1 (515) 708 7555 | ramkris@iastate.edu | www.linkedin.com/in/sramakrishnan247

EDUCATION

Jan 2020 - Dec 2021 **Master of Science | Computer Science**
Iowa State University, Ames, IA, United States | Graduate Scholarship Recipient *GPA - 4.0/4.0*
Coursework: Algorithms, Machine Learning, Deep Learning, Computer Vision, Artificial Intelligence, Concurrent Systems

Aug 2014 - May 2018 **Bachelor of Science | Computer Science**
University of Calicut, India | Awards: Certificate of Excellence for Academic achievements. *GPA - 8.36/10*
Coursework: Data Structures, Algorithms, OOP, Databases, Networks, OS, Distributed Systems, Web Development

TECHNICAL SKILLS

Programming: Python, Java, C++, C, SQL, HTML, CSS, Javascript, MATLAB

Frameworks/Tools: Django, Flask, Node.js, Tensorflow, PyTorch, OpenMP, Scikit-learn, Linux, Git, Docker, Vim, MySQL

WORK EXPERIENCE

Aug 2018 - Oct 2019 **ECI Telecom | Software Engineer** -
- Coded, Documented, Unit Tested and delivered high quality software for ECI's Neptune Product.
- Implemented robust and scalable distributed applications for high-volume performance in C++ and Python.
- Learned more about client-server architecture, multi-threading, request/response cycle and networking.
- Designed APIs for new features, performed code-reviews, fixed bugs and mentored interns.
- Used tools such as Docker, JIRA, Bitbucket, CMake, Confluence, Visual Studio, Vim, Shell, GDB.

May 2020 - Aug 2020 **Computational Media Lab | Graduate Student Researcher** -
- Conducted research for improving class distribution estimation in computer vision.
- Performed data pre-processing and feature engineering on the VISEM dataset using OpenCV.
- Implemented an end-to-end machine learning pipeline with a CNN/LSTM backbone architecture.
- Used tools/framworks such as Tensorflow, Numpy, Pandas, OpenCV, Shell, MS Excel, Matplotlib.

Jan 2020 - Present **Iowa State University | Graduate Teaching Assistant** -
- Lead Teaching assistant(1 out of 3) for COMS 113 at Iowa State University (1200 students).
- Responsible for conducting live labs, grading exams, assisting other TAs and managing the course website.

PROJECTS

Nov 2020 **Map-Reduce Framework**
- Implemented a MapReduce Framework from scratch in C++ with multi-core support for parallel performance.

Oct 2020 **ProveMe: A Theorem Prover for Propositional Logic**
- Implemented syntax parsing, expression tree construction and propositional logic resolution in Java.

Aug 2020 **Checkers Playing Agent**
- Designed an interactive Checkers game utilizing Object Oriented Programming principles in Java.
- Implemented the minimax algorithm with alpha-beta pruning for the agent gameplay.

Apr-May 2020 **Fast Neural Style Transfer**
- Implemented Neural Style Transfer and added optimizations for parallel processing of video-frames.

Feb 2020 **News Classifier**
- Developed a Machine Learning based News Classifier trained on the 20 Newsgroups dataset.
- Implemented the Multinomial Naive Bayes algorithm from scratch in Python.

May - June 2018 **Housing Price Prediction App**
- Performed feature extraction and Decision Tree regression on the Boston Housing dataset.
- Developed a web-application to predict prices for new data using Flask and deployed the model on Heroku.

Aug '17 - Apr '18 **Intelligent CPU Scheduler**
- Implemented a Custom Scheduler which achieved 5% reduction in the Net Turnaround time.
- Performed time-slice prediction based on outputs from K-Nearest Neighbor and decision tree algorithms.

Jan -May 2016 **Parking Management System**
- Developed a web app for a parking management as a part of the Junior Year undergraduate project.
- Server-side(Django),Database(MySQL), Front-end(Bootstrap with Vanilla JS), Maps and Instamojo APIs.