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Vishnunarayanan Ramasubramanian

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Education

Arizona State University   **Tempe, AZ**   **Aug 2017 – May 2019 (Expected)**
- **Masters in Computer Science, GPA: 3.5 / 4**
- **Graduate Coursework:** Foundations of Algorithms, Database Management Systems Implementation, Mobile Computing, Software Security, Multimedia and Web Databases, Applied Cryptography.

SASTRA University, GPA: 8.1 / 10   **Thanjavur, India**   **Aug 2013 – May 2017**
- Bachelor of Technology in Computer Science and Engineering, First Class with Distinction

Employment

Software Engineer Intern   **Teuvonet Technologies**   **May 2018 – Present**
- Designed and developed a hardware-accelerated deep-learning solution using Kohonen SOMs to provide on-point Machine learning as a service on chip
- Envisioned a massively parallelized architecture to save time and memory costs while not compromising on accuracy
- Built an end-to-end solution in the OpenCL framework and interfaced it on GPUs, FPGAs and SoC Accelerators while providing a high-level host interface in Python
- Automated the solution to adapt to both static and streaming data, so as to provide seamless and accurate solutions to real-world problems, while potentially contributing to the field of Explainable AI

Research Assistant   **Arizona State University, Tempe**   **December 2017 – May 2018**
- Designed and developed a browser-based, visual end-to-end machine learning authoring environment using the Django framework to quickly build, train and host Machine Learning models at scale
- Provided CRUD APIs for training and running ML Experiments, along with developing UI components for enriched visualization using APIs like Google Charts

Teaching Assistant   **Arizona State University, Tempe**   **September 2017 - December 2017**
- Assisted Prof. Asim Roy in the CIS 508 : Data Mining course in the department of Information Systems at ASU
- Responsibilities include setting assignments, conducting office hours and grading a class of 174 students belonging to the W.P Carey School of Business

Languages and Technologies

- Languages: Java, C, C++, Python, HTML, CSS, JavaScript
- Technologies: Spring MVC, LaTeX, Android development, Django MTV

Technical Experience

Academic Projects
- **Columnar Store RDBMS:** Developed a fully operational columnar-based RDBMS built on top of an existing row-store RDBMS in MinJava, an open-source library in Java, with basic functionalities such as B-Tree and Bitmap indexes, along with advanced ones, like providing Bitmap-based joins for complex constraints on data.
- **Gesture Recognition:** Built a live Android application for gesture recognition to determine if a user is eating or not from recorded video by training a Support Vector Machine Classifier on the transformed video data, along with collecting Accelerometer data for improved accuracy.
- **Movie Recommendation:** Designed and developed a recommender system for movies using text mining, semantic analysis and manipulating vector spaces with user tags in the IMDB dataset of movie reviews built in Python and PostgreSQL.
- **Applicant Tracking System(ATS) for Job Compatibility:** Showed bias for action by leading a team of three to deliver an ATS using AHP and keyword matching to expedite the hiring process at SASTRA University during Spring 2017 in Java.
- **Web Application for predicting Total Electron Content:** Collaborated with researchers at the Council of Scientific and Industrial Research, India to design and develop a system for predicting Total Electron Content, storage and retrieval of ionospheric data through a scalable web application used by researchers all over the world.

Personal Projects
- **Parkinsons Helper:** Developed a Virtual Reality based avatar that helps in the diagnosis of people at risk for Parkinson's disease, by running a trained neural network on the recording of their voice as they interact with the avatar along with accelerometer and gyroscope data to sense hand tremors.