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Education

- **Arizona State University** Tempe, Arizona
Masters in Computer Science (MS CS), GPA: 4.00/4.00 Aug. 2021 - May 2023
 - **Graduate Services Assistant (Fall '21 and Spring '22):** Teaching Assistant (CSE 110 Principles of Programming), working under Profs. Ryan Meuth and Phillip Miller.
 - **Graduate Student Researcher:** Working under Prof. Pavan Turaga in the Geometric Media Lab at ASU. On-going research focuses on prediction of natural disaster impact using AI.
 - **Relevant Coursework:** Foundation of Algorithms, Data Structures & Algorithms, Data Mining, Data Science for System Decision Analytics, Data intensive systems for Machine Learning.
- **Amrita Vishwa Vidyapeetham** Coimbatore, India
Bachelors in Computer Science; GPA: 3.70/4.00, First Class with Distinction Aug 2016 - July. 2020
 - **Thesis:** Person of Interest Identification using Gait Analysis.

Experience

- **Center for Artificial Intelligence and Robotics (CAIR), DRDO** Bangalore, India
Person of Interest Identification using Gait Analysis, Project Trainee under Dr.Arshad Jamal Dec 2019 - Dec 2020
 - Individually developed a GUI based application named **TrackFaceGait** to track and recognize 22 individuals using CCTV cameras in both indoor and outdoor environments under challenging conditions. Achieved Indoor Gait accuracy of **87.6%**, and Outdoor Gait Accuracy of **80.4%**.
 - Multi-view invariant Gait Analysis for indoor and outdoor environment, for model training and testing used CASIA-B Gait dataset.
 - Extracted gait silhouettes and formed **Gait Energy Images(GEIs)** from 10 different viewing-angles for a single subject. Performed camera, sensor integration and calibration using **ROS**, Data Pre-processing using **OpenCV**, and coded the Deep Learning architecture in **PyTorch**.
- **Advanced Data Processing and Research Institute (ADRIN), ISRO** Hyderabad, India
Summer Research Intern, worked under Dr.Rajesh Datla Apr 2019 - Jun 2019
 - Performed Semantic Segmentation of satellite images to identify Roads, Buildings, and Water-Bodies using **SegNet** and **Mask-RCNN**. Gained exposure to **Scene Graph Generation, CNNs, and LSTMs**.
 - Performed Land Cover classification(terraces, field-borders, waterways, and water state bodies) using an extra hill shade channel with RGB (4 channels) of Satellite Images using **UNet** and **Faster-RCNN**.
- **Amrita Multidimensional Lab (AMuda Lab)** Coimbatore, India
Student Researcher, worked under Dr.Vidhya Balasubramanian(Professor) May 2018 - Mar 2019
 - Developed an application named **ILPSTrack** for indoor localization and tracking of android smartphones inside buildings in the absence of GPS signal using low-energy BLE Beacons and RFIDs. Deployed the project on-campus using an android application for people monitoring.

Projects

- **Artificial Pancreas-Medical Alert System:** Developed a machine learning application to predict (**accuracy: 95%**) whether a person has eaten a meal based on real time glucose levels monitored by a Continuous Glucose Monitor and suggest carbohydrate intake per meal for diabetic patients. (09/2021 - 12/2021).
- **Spatial Hotspot Analysis of NYC Taxi Dataset:** Performed Hot-Cell and Hot-Zone Analysis on the NYC Taxi Trip dataset using **Apache Spark, SQL**. (08/2021 - 12/2021).
- **Analysis on Hybridizing Genetic Algorithms and Fuzzy Logic Inference Systems:** Developed a novel hybrid architecture infusing Genetic Algorithms and Fuzzy Logic Systems to find the optimal solution of a function with multiple local minimas using **MATLAB and Python**. (07/2019 - 12/2019).
- **Hash Cash - Payment Wallet:** Developed a payment wallet application integrating Blockchain services using **Solidity**, notifications and database integration using **AWS services (EC2, S3, SNS)**, and **ReactJS** for building the User Interface. (01/2019 - 04/2019).
- **ChatNet:** Developed a multi-threaded multi-way chat application in **JAVA** using **Socket programming**. (12/2018 - 03/2019).
- **Student Attendance Management System:** Built a web-based application for student attendance management using the **J2EE architecture and AWS services(S3, SNS)**. (07/2018 - 12/2018).

Technical Skills

- **Programming Languages:** C, C++, Java, Python, Javascript, SQL, HTML5/CSS, MATLAB, R.
- **Frameworks:** Django, Bootstrap, Angular.js, Node.js, Apache Spark, Android, React.js.
- **Libraries:** PyTorch, Tensorflow, OpenCV, Keras, Scikit-Learn, ROS, NLTK, NumPy, SciPy, OpenCV, Matplotlib, Pandas, Flask, jQuery, PythonQT, C++ STL.
- **CI/CD and Other Tools:** Docker, JIRA, GitHub, Git, Eclipse, MS Visual Studio, Jupyter Notebook, Netbeans, AWS, CISCO PacketTracer, PostgreSQL, MongoDB, Microsoft Excel, Latex.

Leadership and Achievements

- **IEEE- Eta Kappa Nu(HKN):** (Member) HKN Honor Society at ASU.
- **Merit Scholarship(4 years):** IAFBA scholarship for excellent academic performance. *Amrita University (2016-20)*
- **Association of Students of Computer Science for Information Interchange(ASCII):** Technical Head-Machine Learning Lead(2018-19), Co-Chair(Btech, 2019-20). *Amrita University.*