Magesh Kumar Murali

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Education

Oregon State University: Sep 2016 - May 2018
Master of Science (M.S), Computer Science

Amrita University: Jun 2009 - May 2013
Bachelor of Technology (B.Tech), Computer Science, Major GPA: 8.69/10 (Top 10%)

Work Experience

Graduate Research Assistant Sep 2016 - Present
Oregon State University, Corvallis

- Developed a software framework to help programmers create deep reinforcement learning agents
- Improved the performance of adaptive programming paradigm by using deep reinforcement learning
- Researched and implemented different variational data structures and evaluated its performance
- Developed bots for atari games by implementing several state of the art reinforcement learning algorithms like DQN, HRA, A3C

Technologies Used: Python, Haskell, Tensorflow, CloudML

Application Developer Nov 2015 - Jun 2016
ThoughtWorks, Singapore

- Developed a private banking application for APAC Credit Suisse with support for iOS and android devices
- Architected the UI framework which helped improve code reusability across multiple projects
- Setup and optimized the build process which improved the productivity of developers
- Benchmarked and improved the performance of the application

Technologies Used: JavaScript (ES6), Objective-C, AngularJS, GoCI, Cordova, Gulp

Application Developer Aug 2013 - Oct 2015
ThoughtWorks, Chennai

- Improved the scalability of an existing monolithic application by refactoring it to microservice architecture without any down time
- Developed a workflow management tool for a major book publishing company which improved the turnover rate by 50%
- Developed the promotion module which uses complicated rule logics to decide which promotion can be applied

Technologies Used: Scala, JavaScript, .NET, C#, Agile, TDD, CI/CD

Projects

Adaptive Programming Library A software framework to help programmers develop intelligent agents without prior AI knowledge. It gives programmers access to state of the art reinforcement learning algorithms. GitHub
Tech Stack: Python, Tensorflow, Tensorboard, CloudML, OpenAI Gym

Pragyan An open source question answering system that answers simple 'What, Who, Why' based questions. It uses the power of semantic web. GitHub
Tech Stack: Python, Django, Semantic Web, NLP, SPARQL, DBPedia

Panorama A rendering engine that is used to display any RDF models. The engine would automatically adapt based on the context given by fresnel vocabulary (a W3C specification) and the RDF model. GitHub
Tech Stack: Python, Resource Descrption Framework (RDF), Semantic Web

A.out An open source coding platform that is used to practice and conduct programming contest at Amrita University. GitHub
Tech Stack: Python, Django

Lambda Calculus Interpreter An open source typed lambda calculus interpreter with in built features that can be used to help explain beta reduction. GitHub *Tech Stack:* Haskell

Relevant Courses

- Programming Language I
- Programming Languages II
- Advance Functional Programming
- Algorithms and Data Structures
- Graph Theory
- Intelligent Agents and Decisions
- Software Engineering
- Machine Learning
- Deep Learning

Activities

- Gave a talk on 'Embracing Functional Programming' at ThoughtWorks organized event 'GeekNight'
- Reviewer for ACM SIGPLAN Haskell Symposium 2017
- Funded by DARPA XAI Project, Programming Language Group (λ)
- Rock Climbing, Bouldering, Canyoneering, Hiking, Swimming