Divyendra M

+1 (413) 406-4082 | dmikkilineni@umass.edu | github.com/Divyendra | divyendra.github.io

EDUCATION

University of Massachusetts Amherst
- MS in Computer Science (Dec 2018)

Amrita University, India
- BS in Computer Science (Dec 2013)

TECHNICAL SKILLS

- Neural Networks, specially in Deep QA models
- Good idea on OOP design patterns
- Have knowledge on scalable architectures

PROJECTS

IBM Watson   *(Current)*
- Survey comprehensively on the current open-domain QuestionAnswering models
- Evaluate each of these models adaptability to different question types: math, chain-reasoning etc.
- Model a unified QA approach to multiple question categories

Cellworks Research Ltd, Bangalore, India | Lead Developer   *(Apr '16 - Dec ' 16)*
- Build a HIPPA compliant cloud orchestrator infrastructure over AWS
- Designed to distribute and parallelize the simulation jobs bringing 30% cost savings and 45% time reductions
- #Python3 #AWS #Event driven architecture #MySQL #Asynchronous IO #10K scale

RocketSingh | Motorbike taxi aggregator startup, India | Lead Developer   *(Jun '15 - Feb'16)*
- Implemented the core GeoSpatial Index wrapper to fetch the taxis in nearby location in logarithmic time
- Architected, Designed the server side architecture to support the 10K scale
- Designed and wrote the entire mobile facing app technology stack respecting the mobile environmental constraints.
- A GeoClustering module which would cluster customer orders having vicinal destinations.
- #Play-framework #Java #NoSQL #DynamoDb #Pub-Sub reactive design #Android

Intruo | Interior design online marketplace, India | Software Engineer   *(Dec '14 - Jun '15)*
- Built the 'Content Management module' which aggregates the latest design videos and blogs from the web and gives a provision to be ranked. This helped build the customer Engagement and the site's SEO ranking.
- Implemented the Timeline activity module for customer profiles.
- Built the customer facing Android mobile app which includes the ownership of UI/UX design decisions.
- #Play-framework #Android #DynamoDb #Java

Deutsche Bank | Bangalore, India | Software Engineer   *(Oct '13 - Nov '14)*
- Maintained the middleware environment for the bank's OTCTES trade system
- Setup the Message oriented middleware setup using TIBCO and Java Messaging Services
- #SQL #JMS #WebLogic #Oracle #JDBC

ACADEMIC PROJECTS

Enhancing accuracy over deep networks compressed using Distillation
- Worked on teacher-student compression models and mutual learning compression models under Knowledge Distillation framework.
- Suggested an enhancement to the *Mutual Learning* process especially effective when deep student models are used by initializing weights into a broader local minima space using hint based pretraining.

Deep QA models
- Worked on SQUAD(72.2 F1) and bAbI(90.6%) QA datasets to model neural models for reading comprehension task. As part of which compared traditional RNNs inabilities against SOA Bi-Directional Attention Flow model

Social Connect
- Built an initial level social networking web app with photo sharing facility :: Groovy and Grails framework

Paragraph level Plagiarism Detector
- Implemented the Smith-Watermann algorithm to detect local string sequence alignments

CODE HOSTED

- https://github.com/Divyendra/GeoSpatialIndexCode
- https://github.com/Divyendra/RocketSingh