

## Dimuth M. Kulasinghe

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<b>Education</b>	M.S. in Computer Science, June 2014 Stanford University	
	B.S. in Computer Engineering, May 2012 University of Arizona	
<b>Experience</b>	<b>Google Software Engineer</b>	June 2014+
	- Integration of Youtube ads into mobile platforms	
	<b>NASA Space Grant Intern Advisor</b>	Fall 2011-2012
	- Continued work on SMS gateway application	
	- Developed survey applications for use in monitoring EKG patients	
	- Supported incoming interns, scheduled meetings with prominent NASA members	
	<b>American Express Intern</b>	Summer 2011
<b>Honors</b>	- Ran installations for new ETL transactions in Business Intelligence group	
	- Designed test cases for sample database and data integration system	
	<b>NASA Space Grant Intern</b>	Fall 2010-2011
	- Developed SMS gateway application for use in communicating with clients	
	<b>Phoenix Suns Ball-boy</b>	2007-2008
<b>Github Link</b>	- Performed general pre-game preparatory activities	
	- National Science Foundation Fellow 2012	
	- National Merit Scholar 2008	
	- Intel Scholarship for Employee's Children 2010	
	- IEEE-Eta Kappa Nu, Honors Society for Electrical and Computer Engineers	
	<a href="https://github.com/dimuthk/Dimuth_Projects/tree/master">https://github.com/dimuthk/Dimuth_Projects/tree/master</a>	

## Software Projects

### Harmonisation using Hidden Markov Models

/HiddenMarkov

- HMM classification, Markov Decision Processes

Compare the effectiveness of the Hidden Markov Model in generating harmonisations for vocal and instrumental melodies.

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### Chord Prediction Using Lyric Sentiments

/lyrics.pdf

- Naive Bayes, SVM classification

Construct chord progressions to accompany a given set of lyrics.

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### Document Wikifier

/wikifier.pdf

- Big data (45 GB), Linear regression, Feature selection

Entity tagger which identifies key phrases in a document, and hyperlinks these phrases to their associated Wikipedia pages.

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### Twitter Information Catalysts

/twitter.pdf

- Big data (100 GB), Graph attributes (PageRank, Betweenness Centrality)

Identify information propagators in a Twitter network.

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### Pokemon Card Game Application

/PokemonGame

- GUI, HCI elements (drag/drop/click, etc), OOP design

A software adaptation of the classical Pokemon trading card game.

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### Raytheon Surveying Application

/QuiPST

- Client-server development

Surveyor application. Developed client side using Android, and server side using Django framework.

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### SMS Messaging Standalone Application

/FarmFox

- Android application

Android application allowing use of smartphone as a group SMS coordinator.

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### EKG Surveyor Application

/Alerter

- Android application, client-server interaction

Phone application allowing surveying of EKG patients on periodic intervals.

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### SMS Messaging Gateway Application

/bluefox

- Android application, Drupal (server) interaction

Phone application that allows smart phones to be used as gateways for SMS communication between servers and clients