

# Hemanth Devarapalli

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320 Brown St., Apt. 408, West Lafayette, IN 47906

## EDUCATION

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- **Purdue University (3.52 GPA)** West Lafayette, IN  
*Master of Science in Computer and Information Technology*  
Dec. 2018  
Deep Learning, Artificial Intelligence, Natural Language Technologies, Data Mining  
IoT, Interactive Computer Graphics, Game and VR Dev
- **Jawaharlal Nehru Technological University (3.7 GPA)** Hyderabad, India  
*Bachelors in Electronics and Communication Engineering*  
May 2013

## SKILLS

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.Net/C# | Java | Python - *pytorch, numpy, tensorflow* | Ruby - *Rails* | Golang | JS - *React + Redux, Nodejs* | Lua - *Torch*

## WORK EXPERIENCE

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- **Purdue University** West Lafayette, IN  
*Graduate Assistant for the Center for Career Opportunities (CCO)*  
Aug 2016 - Present
  - **Programming:** Rewrote the CCO's website from scratch using .Net MVC5 and Entity Framework. Manage the bi-weekly release schedule, on *dev-qa-production* environments.
  - **Management & Leadership:** Oversaw the migration of data, deployment of new applications. Managing and mentoring Undergrad students working at CCO.
- **Pay My Rent/SplitX (Startup)** Chennai/Bangalore, India  
*Chief Technology Officer & Co-founder*  
Aug 2015 - Mar 2016
  - **Programming:** Primary Backend developer for the startup. Wrote the REST service for the Web and Mobile clients using Ruby on Rails.
  - **Management & Leadership:** Handled the entire Technology aspect for the startup (architecture, tech stack choice, server maintenance). Involved with hiring interns and engineers along with managing them.
- **Automatic Data Processing** Hyderabad, India  
*Developer*  
Jul 2013 - Jun 2015
  - **Rewrites:** Migrated 5 applications from legacy ASP to ASP.Net 4.0.
  - **.Net MVC 5:** Created a MVC4 Mobile POC Web App for the HR Management Application. Created Server Dashboard for SIEBEL Servers involving MVC4, WCF and Windows Services.
  - **Linux and Nodejs:** Integration of Jive's Collaboration Software into ADP's Backend using NodeJS.

## MASTER'S THESIS (IN PROGRESS)

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- **Forced Attention for Image Captioning :** Image guided attention while Captioning Images. The user is able to specify objects in the image which are attended to while captioning. This is done by modifying soft attention
  - Extracting attention maps for the target object, and using it with it to the soft attention mechanism.
  - The subsequent decoder network uses the modified attention mechanism in generating the captions.
  - New architecture improves performance upto 3% on CIDEr for certain objects.

## SELECT PROJECTS

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- **Text generation - Deep Learning based and Graph based:** Auto-generation of text using the Amazon Reviews dataset by - pure graph based approach with Neo4J and Deep learning approach using LSTMs.
  - *Cypher queries* to generate the next word, and thereby a whole sentence given a seed.
  - Generating sentences using a Sequence to Sequence (Seq2Seq) network with attention and beam search.
- **Chatbot with Tensorflow NMT:** Discord bot built using the Neural Machine Translation network, which learns from the chat transcripts.

## HONORS AND AWARDS

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- **Amazon Startup Weekend:** Runners up, built AI bot for Customer Support 2015
- **Microsoft Imagine Cup:** Runners up, Indian national finals 2013
- **IBM The Great Mind Challenge:** 5th place, Indian national finals 2011