

# Pankaj Bhambhani

Masters Student at UMass Amherst, 3 years of Professional Experience. Interests in Machine Learning, Algorithms and Software Security.

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## + Experience

### Play Games 24x7 Pvt. Ltd.

Software Development Engineer July 2013 to May 2016  
Worked as SDE for RummyCircle.com, one of the major products of Games24x7. Involved in Full Stack Web Development.

**Technologies** - Java, Spring, Spring Security, Jersey (JAX-RS), Hbase, Ehcache, Terracotta, Redis, Akka, MySQL, MyBatis, Node.js.

**Accomplishments** - Horizontal scaling of distributed caches using Ehcache and Terracotta, building Restful Web Services and strengthening application security using Spring Security.

### KDE (Google Summer of Code)

Software Developer May-July 2011 & May – August 2012  
Integrated features of Facebook into KDE's micro blogging client, Choqok (Under Google Summer of Code 2012).

**Technologies:** KDE4 based on Qt (C++ based GUI Framework).

**Link** - <https://github.com/pankajb64/choqok-facebook>

### Oracle

Automation Engineer December 2012 to May 2013  
Worked as an Automation Engineer with Merchandise Operations Management (MOM) Team at Oracle Retail Used technologies like HP Quick Test Professional and Selenium WebDriver for scripting and execution of test cases.

## + Projects

### Image Captioning with Visual Attention

Machine Learning October – December 2016  
Developed a neural model to generate image captions using visual attention mechanism, based on the latest research. We used a Convolutional Neural Network (CNN) to generate attention based features and a Long Short-term Memory Network (LSTM) as a recurrent net for generating image captions.

**Link** - [https://github.com/pankajb64/image\\_caption\\_using\\_attention](https://github.com/pankajb64/image_caption_using_attention)

### Content Summarization of a Book using its Index

Natural Language Processing October – December 2016  
Explored options for summarization of long documents (such as books) and designed a method to summarize contents of books using their back index.

**Link** - <https://github.com/pankajb64/bookesis>

### Pictionary with Jibo

HackUMass 2016 October 2016  
Taught the robot Jibo to play Pictionary on a set of hand-drawn images. Used Jibo SDK and TensorFlow's Image Recognition Algorithm "Inception" to train the model. We took line drawings from the internet as our data.

**Link** - <https://github.com/pankajb64/jibo-pictionary>

### Duckworth Lewis (D/L) Calculator for Android

Personal Project April – May 2015  
Designed and Built Duckworth Lewis Calculator - an Android application which lets users predict scores and results in rain interrupted cricket matches. **Technology:** Android.

**Link** - <https://github.com/pankajb64/duckworth-lewis-d-l-calculator-android>

## + Education

### University of Massachusetts Amherst

MS - Computer Science September 2016 – PRESENT

**Relevant Coursework** – Machine Learning, Natural Language Processing, Artificial Intelligence, Systems

### DA-IICT

B.Tech. - Information & Comm. Technology 2009-2013

**Relevant Coursework:** Algorithms, Data Structures, Computer Networks, Databases, Operating Systems, Systems Software, Cryptography, Security Protocols, Graph Theory, Computer Organisation, Natural Computing

## + Skills

**Interest Areas** - Machine Learning, Natural Language Processing, Algorithm Design and Analysis, Software Security, Computer Networking, Information Retrieval, Artificial Intelligence

**Programming Languages** - Java, Python, C++, MySQL, JavaScript, Bash (Familiarity with: Scala, Ruby, C, HTML, CSS)

**Development Technologies** – Keras, Theano, Spring, Qt, Android, Hbase, Ehcache, Terracotta, RabbitMQ, Redis, Akka, JDBC, Hibernate, MyBatis, Node.js. Apache Tomcat, jQuery, Django, Rails, Selenium

**Software Tools Used** - Git, SVN, Ant, Maven, Eclipse, Android Studio, Wireshark, Vim