# Pankaj Bhambhani

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

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#### 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.



### **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

#### **Automated Summarization of a Book using its Index**

**Natural Language Processing** 

October - December 2016

Explored options for automated 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 TenserFlow'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



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