Pankaj Bhambhani

UMass Amherst Master's CS, 3+ years Work Ex. Seeking Full-Time Roles - Machine Learning, Software Development

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EDUCATION

University of Massachusetts Amherst MS - Computer Science (GPA – 3.95) Expected Graduation – May 2018
Coursework – Machine Learning, Natural Language Processing, Artificial Intelligence, Reinforcement Learning, Systems

Dhirubhai Ambani Institute of Info & Comm Tech. Bachelor of Technology 2009-2013
Coursework: Algorithms, Data Structures, Networks, Databases, Operating Systems, Cryptography, Natural Computing

SKILLS

Languages - Java Python, Bash, SQL, C++
Frameworks – Spring, Tensorflow, Keras, Docker, AngularJS, Android
Tools – MySQL, AWS, MATLAB, Redis, Hadoop, Git

PROFESSIONAL EXPERIENCE

Play Games 24x7 Pvt. Ltd. - Software Engineer (Full-Stack) for RummyCircle Jul 2013 - May 2016

- Scaled and optimized distributed in-memory caches using **Ehcache** and **Redis**, also optimized gameplay bot.
- Built RESTful Web Services using **Spring**, Strengthened application security using **Spring-Security**.
- **Technologies – Java, Spring, Redis, MySQL, Bash, Test-NG**

Machine Learning for Data Science (MLDS) Lab – Software Developer for Dark Ecology Project May 2017 - Present

- Scaled the existing learning models to run on large volumes of data, which identify patterns in bird migrations.
- Plans include Analyzing the results and Generating plots to better understand bird behavior during migration.
- **Technologies – MATLAB, AWS S3, AWS Batch, Docker, Python.** See **darkecology.cs.umass.edu**

K-Desktop Environment (KDE) - Software Developer for Choqok Summers 2011, 2012

- Integrated Facebook support for users of KDE's desktop client, Choqok.
- Built a base library which allows users to create, view, like and comment on posts
- **Technologies – Qt**, **C++.** See **github.com/pankajb64/choqok-facebook**

RESEARCH EXPERIENCE

Detecting Swallow Roosts using Deep Learning – Masters Project with MLDS Lab Sep 2017 - Present

- Formulating Faster-R-CNN based models to detect and locate swallow roosts in weather image data.
- Plans include Building a benchmark data set, fine-tuning models, and Evaluating for large scale data using AWS.
- **Technologies – MATLAB, Python, AWS S3.** See **darkecology.cs.umass.edu**

Machine Learning Techniques for Website Fingerprinting (WF) Attacks – Independent Study May - Aug 2017

- Evaluated machine learning models for targeting WF attacks on the Tor network.
- Proposed a 1-D CNN based model which can classify multi-tab, time-variant data with competitive accuracy.
- **Technologies – Keras, Numpy, Sk-learn, Python, C++, Bash.** See **github.com/pankajb64/wf_attacks_evaluation**

ACADEMIC PROJECTS

Image Captioning with Visual Attention - Machine Learning Course Project Oct - Dec 2016

- Analyzed an LSTM-based deep learning model to generate captions given an unseen image.
- Produced visualizations showing what the model is looking at while predicting a word in the caption.
- **Technologies – Keras, Theano, Python.** See **github.com/pankajb64/image_caption_using_attention**

Pictionary with Jibo - HackUMass 2016 Oct 2016

- Trained Jibo a social robot, to play Pictionary using Tensorflow's Image Recognition models and simple line-drawing images, with over 80% accuracy for common objects such as house, chair, etc.
- **Technologies – TensorFlow, Jibo SDK, OpenCV, Python.** See **github.com/pankajb64/jibo-pictionary**