Namita Sanjay Mhatre

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EDUCATION

Stony Brook University, New York **(Expected December 2017)**
Masters in Computer Science.
Research Assistant at Human Interaction Lab (http://hi.cs.stonybrook.edu/) **working with professor Roy Shilkrot.**
Courses: Operating Systems, Artificial Intelligence, Computer Vision, Human Computer Interaction, Probability and statistics.

K. J. Somaiya College of Engineering, Mumbai, India **(May 2016)**
Bachelor of Computer Engineering. Secured a CGPA of 8.51/10 aggregate.
Courses: Machine Learning, Soft Computing, Cryptography, Operating systems, Data Structures, Web Technologies.

INDUSTRY EXPERIENCE

Maharashtra State Road Transport Corporation (MSRTC) , Mumbai, India **(February 2015-January 2016)**

- Involved throughout the SDLC lifecycle of the project - Design, Code, Test, Debug and deployment.
- Designed and develop a web-based software to digitize contracts and inventories for internal use of stores department of MSRTC to facilitate ease of access using technologies HTML5, CSS, Bootstrap, Php, and XAMPP.

Wohlig Technologies, Mumbai, India **(October 2014-January 2015)**

- Developed two responsive websites. The backend using PHP and the frontend using bootstrap, HTML5, CSS, Bootstrap, Php and JavaScript. Maintained database using XAMPP.
- Worked on optimizing the page loading time and other front-end optimizations, responsiveness, and cross browser compatibility.

SKILLS AND TRAINING

Programming Languages: Java (Proficient), C, C++, PHP, SQL, Python, Prolog, J2ME.
Web Technology: HTML, HTML5, CSS, JavaScript, PHP, Bootstrap.
Operating Systems: Windows, Linux, OS X, Ubuntu.
Databases: MySQL, PostgreSQL.
Other Software: Dreamweaver 8, Eclipse, AutoCAD, Xampp, Matlab, MS Office, GIT, Fritzing, FreeCAD, Inkscape, Xcode, Android Studio.
Trainings and certifications: Android App Development, Machines Learning, Big Data and Cloud Computing.

PROJECTS

Collaborative Mural Painting – Human Computer Interaction (HI Lab) **(Ongoing)**

- To create a collaborative mural painting experience for multiple people using spray cans, where the painting medium (wall) and the spray cans will be marked with AR markers; multiple cameras will point at the wall where people paint, and pick up on the positions of the cans w.r.t to the wall and the computer coordinates the positions of the cans (people/painters) and directs them where to/not to spray-paint.
- **Software Technologies**: Computer Vision, Visualization, Graphics, Database, Networking, etc.
- **Hardware Technologies**: Augmented spray cans, Tracking System (AR Markers), Embedded communication, Arduinos.

Linux Kernel Development – Operating System Project **(Fall 2016)**

- **Stage 1:** Configured and built a linux kernel; developed a loadable module, which when loaded supported a system call to sort and merge the content of two files to generate a single output file. Validations were done at both user and kernel level.
- **Stage 2: Stackable Tracing File System:** Developed a stackable tracing file system to intercept and trace records of file system activity for a number of file system operations like read, write, link, rename, etc. These operations were captured in a trace-file, which could then be used to replay these operations from user level.
- **Stage 3: Per Process System call vectors:** Developed a loadable module which added a functionality where we have a vector of existing and modified system calls per process. Thus, the process can only use those system calls. Added options for inheriting the system call after forking parent process. **(C- linux kernel programming)**

Yelp photo classification (Kaggle) – Computer Vision Project **(Fall 2016)**

- Solved the Kaggle Challenge for Yelp photo classification. Developed and trained a neural network using SVM for classifying the photos in 8 categories (Multi-variate Classification). Used VGG-16 and Inception V3 pretrained networks for feature extraction. Compared both using F1 score. (Mean F1 score – maximize both precision and recall) Achieved a maximum F1 score of 0.78.
  Technology- **Python (Libraries: Theano, Lasagna, Tensor flow).**

Weather Prediction (Kaggle) – Artificial Intelligence Project **(Fall 2016)**

- Solved the Kaggle Challenge for Sunny with a chance of Hashtags. Achieved a root mean squared error score of 0.159. Used the random forest and ridge classifiers with multiple feature extractors in a neural network along with truncatedSVD for dimension reduction. Technology- **Python** (Libraries: **sklearn** for classifiers and neural networks)

An Interactive Chat-Bot as a Personal Assistant – Final year B.E. Project **(Academic Year 2015-16)**

- Developed a chat-bot which can read meeting related emails, reply to them and schedule meetings for a client. Technologies used: **Php, NLP** (AIML and pattern matching techniques), and **Google APIs** (Gmail and Calendar).
- Developed a web interface for the same where the client could manage the chat-bot settings.
- Implemented machine learning techniques to find out meeting specific emails and to classify the clients contacts so as to prioritize meetings based on past communications.

RESEARCH PUBLICATION

Journal: International Journal of Computer Applications, New York.
Topic: implementation of an interactive chat-bot acting as a personal assistant.
URL: http://www.ijcaonline.org/archives/volume140/number10/24628-2016909460