SWAPNIL TANEJA

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Education

UC San Diego – MS in Computer Science, (**CGPA – 3.67/4**) (Sep '16 – Jun '18)

- Courses - Algorithm Design and Analysis, Principles of Data Base Systems, Probabilistic Reasoning & Learning (AI)
- Tata Scholar – Awarded Scholarship for higher education among 50000 applicants in 2016.

Indian Institute of Technology, Roorkee - B. Tech, Electrical Engineering, (**CGPA – 4.0/4**) (Jul '10 – May '14)

- Courses – Data Structures and Algorithms, Discrete Structures, Image Processing, Cryptography
- Secured JEE (Joint Entrance Examination) Rank – 1601 among 460,000 candidates in 2010

Work Experience

Oracle Corporation, Software Developer (Jun '14 – Aug '16)

- Enhanced the automation framework code, Fusion Applications Provisioning, by merging similar procedures and removing redundancies– **ANT, Java**
  Impact: Improved running time of provisioning framework by 20%.
- Built a research project - a tool called *Log Miner* to predict the cause of logged errors using Machine Learning algorithms. Got featured in Oracle Social Network for leveraging IEEE research – **Java, KNN** and **decision trees**.
  Impact: Achieved an **accuracy of 90%,** significantly reducing the time for parsing logs and debugging.
- Wrote Life Cycle Management Read APIs using Introspection and Topology manager APIs - **Java**
  Impact: Used by Patching, Upgrade and E2E automation teams.
- Developed plugins for Health Checker framework for validating provisioned environments – **Java, ANT**
  Impact: Used extensively on a day to day basis for validating customer environments.

Hewlett Packard Education Services, Brand Ambassador, Intern (Jun '13 - Jul '13 & May '12 - Jun '12)

- Secured the Title of Brand Ambassador for two years 2012 and 2013 for excellent performance during internships.
- Developed a website prototype for airline reservation. The task was to implement and test a scheduler for flights from different aerodromes preventing clashes - **Asp.Net, C#, SQL Server**
- Built a robot with an ability to never fall off the table. It can be additionally controlled by a computer and allows chat with other computer controlled bots - **Atmega 16 AVR, IR Sensors**.
  Impact: Solved the problem of limiting the bot within the boundaries and prevention from collisions and falling.

Technical Skills

Languages/Framework - Java, C++, MySQL, Android, HTML, CSS, Python, Junit, C#

Platform/Software/Tools – Linux, MATLAB, SQL Server, Android Studio, Visual Studio, ANT, Gradle, OpenCV, Git

Projects and Research

Android Applications (Dec '16)

- Created the following Android apps and optimized the speed of background tasks making the interface more User friendly and Interactive.
  - Weather App: to display weather forecast for preferred location using Udacity API [Link]
  - Hydration Reminder: to promote timely drinking of water by notifying user every 30 min. while charging. [Link]
  - Music Visualizer: to display the higher, middle and lower range of frequencies of a song. [Link]

Hangman (Sep '16)

- Developed a Hangman game model to get the next best guess for 5 lettered words based on a probabilistic model run on a corpus from WSJ articles. – **Java, MATLAB**
  Impact: Achieved a peak accuracy of 99% on the model for Hangman.

Designing & Building Humanoid Robot (Bachelor's Thesis) (Aug '13- Mar '14)

- Built a humanoid robot with the following features – Locomotion on Wheels, Greeting of Humans, Hand Shake and Face Tracking –DC Motors (wheels) and Servo Motors (face) were controlled using Arduino, which required interaction with PC running Facial Recognition Classifiers. **Haar Cascade Classifiers (Open CV), Arduino Uno – Atmega 16 AVR**. [Report] [Videos]
  Impact: Achieved a 95% facial distinction while ensuring security of the lab.

One Eyed Robot, Tech Fest Shristi (Jul '13 - Aug '13)

- Implemented facial recognition for passersby on a Webcam mounted on two servo motors tracking the face of human. Used **OpenCV** and **Arduino Uno** for controlled motion of webcam in the 3 degrees of freedom.