Swarnima

Software Engineer

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Education

Indian Institute of Technology, Kanpur   *Kanpur, India*
B.Tech in Electrical Engineering   *July. 2011 - June. 2015*
- Cumulative Performance Index of **6.8/10**

Experience

Software Engineer at Shuttl   *Gurgaon, India*
iOS Developer @ (Shuttl)   *April. 2017 - present*
- Built the **TV Connect** app which lets multiple users sync their phones with the Shuttl TV which allows them to listen to the audio on their personal devices
- Worked to improve the reliability and user safety in the app by incorporating several features like SOS, **automatic rash driving prediction**,and automated **customer support**

Software Engineer at CrownIt   *Gurgaon, India*
iOS Developer @ (CrownIt)   *Feb. 2016 - Feb. 2017*
- Worked in a team of 2, to develop and upgrade various features of Crownit app, an online to offline business driving platform
- Drove **product growth** by taking charge on developing several key features such as **weekly rush, bill payment, cab booking service, user login flow** etc.
- **Developed** the **Crownit merchant app**, which allows merchants to go through bills and business generated through Crownit and also allows them to add events to their respective outlets
- Worked with various third party frameworks like **Alomofire** for network calls and **Realm** for mobile database

Software Engineer at ROPOSO   *Gurgaon, India*
iOS Developer @ (Roposo)   *Sept. 2015 - Jan. 2016*
- Worked as an **iOS developer** in a team of 3 people for ROPOSO, a fashion focused social media platform that allows users to share, discover and shop new products and trends.
- Developed several key features of the ROPOSO iOS app independently such as user behavior **analytics**, **widgets**, **multiple interface screens**, **animations**
- Implemented and integrated **Localytics** (mobile engagement platform) on the mobile app to understand and analyze user behavior
- Added **dynamic suggestion cards** to the app interface improving the usability of the platform
- Utilized modern design patterns like **Modal View Ccontroller**. Also, gained conceptual background about **memory management** and **multi-threading in iOS**

Projects

Robust Convex Optimization   *IIT Kanpur*
Undergraduate level project   *March 2015 - April 2015*
- Modeled the **robust mean variance optimal (MVO)** problem for **Portfolio Allocation** based on external market factors introduced by interval uncertainty
- Compared the robust and classical MVO methods by time series analysis of **stock market data**
- Presented the Robust linear classification model using **Support Vector Machine (SVM)** algorithm under **elliptical uncertainty** of point location
- Compared the model of Standard SVM and Robust SVM on randomly generated points

Intelligent Chat Bot   *IIT Kanpur*
Undergraduate level project   *May 2012 - June 2012*
- Developed a chat bot capable of performing dynamic interactions with a user
- Implemented TCP channel in **PHP** for to and fro transmission of replies
- Devised a way to convert sentences into keywords based on which reply was chosen
- Made extensive use of **MySQL** for storing a dynamically evolving reply database for chat bot

Load Balancing in an Electrical Power Grid   *IIT Kanpur*
Course level project: EE330   *March 2015 - April 2015*
- Performed electrical power system simulation, using **PowerWorld** software and computed the solution of power flow problem for a network having 3 buses using **Gauss**-**Siedel method**
- Analysed the impact of varying several variables of the network such as voltage of the slack bus and the power at the generator and load buses.

Real Valued Direction of Arrival (DOA)

IIT Kanpur

UNDERGRADUATE LEVEL PROJECT

Jan 2014 - March 2014

- Estimated the Real valued DOA for uniform linear array with **unknown mutual coupling**
- Transformed the **complex-asymmetric covariance matrix** comprising of coupling coefficients into a **diagonal matrix**, used to implement **MUSIC algorithm**
- Performed simulations on MATLAB to test the accuracy of the obtained DOA for different coupling which agreed with the expected theoretical results

ERP System for Steel Company

IIT Kanpur

UNDERGRADUATE LEVEL PROJECT

Aug 2014 - Nov 2014

- Modeled the **organizational structure** of a small size steel manufacturing company focusing on their production, supply chain management, sales and marketing divisions
- Identified and evaluated **5 Enterprise Resource Planning (ERP)** solutions for the company and selected the best suited by creating an **Analytic Hierarchy Process (AHP)** model
- Acquisition and maintenance cost was used to **estimate cost** of implementation of the ERP project

Coursework and Skills

Courses	Data structures and Algorithms	Probability and Statistics	Convex Optimization	Machine Learning*
	Microprocessor Architecture	Digital Electronics	Digital Communication Networks	Game Theory
	Principle of communication	Digital Signal Processing	Partial Differential Equations	Semiconductor Devices

Softwares   Xcode   MATLAB   LaTeX

Languages   Swift   Objective-C   C++   C   JAVA   Verilog   VHDL   *Coursera course by Andrew NG

Extracurricular Activities and Responsibilities

Member of Institute Women's Volleyball team

SPORTS

- Awarded **special appreciation award** for outstanding performance in the women's volleyball team at IIT Kanpur through the years 2011-13
- Part of the team that won **gold medals** at the Inter IIT Sports Meet 2013 and District Level Women Volleyball Tournament 2012 as well as **silver medals** in Inter IIT Sports Meets 2011 and 2012 and District Level Tournaments in 2011 and 2013.

A study on Drug Abuse Analysis and Prevention in India

SUMMER INTERNSHIP AT NATIONAL INVESTIGATION AGENCY

- Analyzed and surveyed the efficiencies of drug abuse prevention policies in India under the mentorship of **Sh. P.V.R. Sastry, IPS, NIA**
- Interacted with people from **UNODC, NCB** and **Govt. Ministries** to understand the complexities of drug abuse in India
- **Critically analyzed** the policies, data and reports to understand the government's perspective on the menace of drug abuse
- **Recommended actionable improvements** to relevant policies which were taken up by Rakshak Foundation for **implementation** with the **Government of India**

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