

Anurag Shirolkar

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ACADEMIC ACHIEVEMENTS

- Secured an All India Rank of **290** in **IITJEE 2012** among **5 lakh** aspirants
- Secured **95.64%** in matriculation and **85.83%** in intermediate/+2 conducted by Maharashtra state board
- Secured **17th** position in **Indian National Mathematical Olympiad 2011** conducted by NBHM and Attended **IMO Training Camp 2011** conducted by HBCSE, Mumbai
- Awarded a Gold Medal in **Indian National Physics Olympiad 2012** and Attended **International Physics Olympiad Training Camp 2012** conducted by HBCSE, Mumbai
- Qualified for **KVPY 2011-12** fellowship with **AIR 215**
- Secured **8th** position in Maharashtra state in Highschool scholarship Examination conducted by Maharashtra state board

WORK EXPERIENCE

Software Developer, Function Space

Summer'14

- Implemented a **Document Classifier** in python using **Maximum Entropy Classification Algorithm**
- Used **D3.js** library to create User Interface with Dynamic and Interactive Components for data visualization

Web Developer, Infermap

Nov'13-Feb'14

- worked as **Web Developer** at **Infermap**, a web based educational portal launched in 2014, started by IITB students

ACADEMIC PROJECTS

Compiler

Jan'15-Apr-15

Guide: **Prof. Amitabha Sanyal**

- Incrementally designed a compiler in different stages for tokenizing, parsing, syntax-analysis and code generation using FlexC++ and BisonC++

Machine Translation - Natural Language to SQL

Aug'14-Nov'14

Guide: **Prof. Dr. Pushpak Bhattacharyya**

- Worked on various aspects of **Natural Language Processing** for translating queries written in natural language to SQL
- Implemented Machine Learning and Rule Based approach and compared their performances

Remote Desktop Connection

Aug'14-Nov'14

Guide: **Prof. Varsha Apte**

- Program for browser based remote desktop connection for controlling desktop remotely
- Implemented socket connection between client browser and python server on remote desktop for communicating screenshots and client activity

Chess

Mar'13-Apr'13

Guide: **Prof. Amitabha Sanyal**

- Served as a **Team Leader** of a 3 member team
- Implemented **Mini-Max algorithm** with **Alpha-Beta pruning** in **MIT-scheme** for machine player with moves optimized till 6 depth level of gameplay
- Integrated a **GUI** as well as playability over **LAN**

Transformer Animation

Aug'14-Nov'14

Guide: **Prof. Parag chaudhuri**

- Modeled, textured and animated a transformer robot from scratch with OpenGL
- Developed an interactive environment for the keyboard controlled bot

CODING AND DEVELOPMENT

Natural Language Processing Tools

Self Project

- **Emotions Classification** using method of synonym hops on senti-wordnet
- **Topic Modelling** in python using Latent Dirichlet Allocation with scikit-learn
- **Stylometric Analysis** for Authorship attribution using Delta Analysis and Hierarchical Clustering

iNote - Handwriting to Text Converter

Summer'13

Institute Technical Summer Project

- Built an **Android App** which takes notes in your handwriting and converts it to text
- Awarded **Best Research Project Award**

PRACTICAL SKILLS

- Skilled in **C/C++** Object Oriented Programming
- Skilled in **scheme(Lisp)** and concept of functional programming
- Skilled in Web Development using **PHP, JQuery, HTML5, CSS3, MySQL** and Frameworks like **Laravel**(MVC Framework for PHP)
- Familiar with Android Programming, Assembly Programming, Bash, VHDL, $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$, Prolog

FIELDS OF RESEARCH INTEREST

- Design and Analysis of Algorithms
- Machine Learning
- Natural Language Processing
- Artificial Intelligence
- Number theory

CO-CURRICULAR ACTIVITIES

- Active user on online coding forums like SPOJ(Sphere Online Judge) and Hackerrank
- Made an RC car for XLR8, a multi-terrain race for RC cars
- Successfully completed the course conducted by **National Service Scheme**
- Participated in interschool football matches
- have an avid interest in drawing