

# ABHISHEK HEMANT NAIK

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## EDUCATION

**Indiana University**, Bloomington, IN, United States  
*Master of Science in Computer Science*  
CGPA: 3.59/4.0

May 2018

**University of Mumbai**, Mumbai, India  
*Bachelor of Engineering in Computer Engineering*  
Passed in first class with distinction (Percentage: 70.26%)

May 2013

## WORK EXPERIENCE

**Indiana University**, Bloomington, IN, USA  
*IT Programmer and Web Developer (Part time)*

January 2018 - Present

Working with IU affiliates in a group of 3 to help them create, redesign or extend their frontend and backend.

**Tata Consultancy Services (TCS)**, Mumbai, India  
*Systems Engineer (Client: General Electric)*

January 2014 - July 2016

- Elicited the accounting requirements of various GE businesses and accordingly developed various packages to migrate their live data to new accounting system. Helped in revenue savings of around \$100,000 as a part of process improvement. Secured '**Six Sigma Green Belt**' certification for the same.
- Used C++, PL/SQL, Oracle database and Microsoft Excel. Developed algorithmic thinking, leadership and cross-cultural collaboration skills due to businesses spread across 3 continents.
- Tutored a group of 11 on the team on Microsoft Excel as it was imperative for efficient productivity in time-critical scenarios.
- Organized and lead a committee '**Talk Club**' for enhancing speaking and interpersonal skills via small talk, elevator pitch, speeches, etc. modelled similar to the Toastmasters International club.

**Anu Tutorials**, Kalyan, India  
*Lecturer*

June 2013 - October 2015

- Taught algorithms and databases to a class of 30 undergraduate students.
- Developed an ability to express ideas, public speaking, leadership and good presentation skills, as noted from student feedback.

## TECHNICAL SKILL SET

**Software tools/technologies:** Vim, PL/SQL, MS Office, Windows, Linux, Git, GitHub, , GCC, Eclipse, Docker, Apache Tomcat, Ansible, Cloudmesh, Chameleon clouds, Xinu, Hadoop, MapReduce, HBase, NoSQL

**Programming languages:** Java, C++ (including STL), Python, C, SQL, HTML, CSS, JavaScript, PHP, R, AngularJS

**Databases:** Oracle, MySQL

## ACADEMIC/SIDE PROJECTS

**Unbounded Big Integer Datatype** (C++, Ubuntu)

- Created a library for complimenting the lack of built-in Big Integer support in C++.
- Works on numbers of the order  $10^9$  (and can be extended depending upon the requirement)

**Implementation of vehicle detection application on Chameleon Clouds** (Ansible, Chameleon clouds, Cloudmesh, C++, OpenCV, VirtualBox)

- Implemented the vehicle detection application for deployment on Chameleon clouds.
- Used Ansible for deployment of software stack and Cloudmesh for Chameleon cloud control and management.

**Artificially intelligent program that suggests the next best move to the 'Pichu' player** (Python)

- Developed an artificially intelligent program that suggests the next best move that a white (or black) player should make in 'Pichu' (a chess like game) in order to maximize his chances of winning.
- Used minimax algorithm along with alpha-beta pruning to help increase the efficiency.

**Video image extractor** (AngularJS, CCV.js, HTML5, CSS)

- Developed an AngularJS web application wherein the user could upload a video and the website would generate a series of images that have faces of actors in them. No server was involved and the video upload and processing takes place locally.
- Work in progress to introduce artificial intelligence in the web application by using IBM Watson Hidden Markov Model for face detection instead of CCV.js currently being used.

**Route finder among US cities** (Java)

- Implemented and carried out a comparative study of various graph algorithms like Breadth First Search, Depth First Search and Dijkstra's algorithm to find out the routes amongst major US cities.

**Hotel Web Application** (J2EE, JSP, Servlets, Java Beans, Java Script, HTML5, CSS, Bootstrap, MVC architecture, JIRA, Agile)

- Implemented the Billing component end-to-end, working in a group of two (out of a larger group of eight).
- Developed UML diagrams and used J2EE concepts like JSPs, Servlets, Java beans, JDBC along with MVC architecture and JIRA tool for development using an Agile methodology.

**Classification of the Car Evaluation Dataset** (Random Forest, Decision Trees, Mosaic Plots, Box plots, R)

- Worked on the UCI Car Evaluation dataset to predict its acceptability factor.
- Used Mosaic and Box plots for the visual representation of the dataset and used Random Forest and Decision trees to achieve close to 98% classification accuracy.

## AWARDS AND COMMUNITY SERVICE

- Core committee member of '**Bhakti Yoga Society**' spreading awareness about meditation & Vedic wisdom at the university.
- Delivered the '**Teach India**' course content (a CSR event by the Times of India, a leading Indian newspaper) at the grassroots' level by visiting the underprivileged youth at NGOs to teach them English speaking skills and make them job-ready.
- Awarded '**Academic Interface Program**' award for significant contribution towards TCS' campus-corporate transformation.