

MANIKANDAN MURUGESAN

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Indiana University, Bloomington

Masters in Computer Science, 2017
GPA : 3.46/4

Amrita School of Engineering

Bachelors in Technology, 2013
GPA : 7.2/10

ACADEMIC PROJECTS

- **Weather Predictor:** Developed a fault tolerant prototype which is built on Service Oriented Architecture with multiple micro services communicating with each other through REST calls. Deployed the services on Amazon EC2 instances with the database hosted on RDS. The prototype features continuous integration, continuous deployment and load balancing. (Java, Python, JavaScript)
- **YELP Dataset Challenge:** Predicted the category of the restaurant by training the classifier on the given dataset. (JAVA)
- **Scene Classifier:** Classified a set of images into scene categories using Bag of Words model and SVM classifier. (C++)
- **Search Algorithms:** Implemented Indexing, Retrieval Algorithm and PageRank using Lucene and JUNG package. (JAVA)
- **POS Tagger:** Implemented a Part of Speech tagger, which predicts parts of speech in a sentence using Bayesian network models. (Python)
- **Operating System:** Developed process synchronization, basic memory management, networking and simple file systems on a XINU OS running on a Beagle Bone Black. (C)
- **Image Recognition:** Built an image matching tool which finds the image similar to a given image from a dataset using SIFT matching. (C++)
- **Homography Transform:** Transforms given image into the same projection as another image using homography transformation. (C++)
- **Shopping Website:** Built a shopping website which lets the user register, view and order the products on the site and an admin panel to monitor the orders and manage the inventory of the site. (HTML, CSS, PHP)

CERTIFICATIONS

- **Microsoft Technology Associate (MTA):** The fundamentals of IT; certification in Database Management System.
- **Cognizant Certified Student Programmer (2011-12)** on IT FOUNDATION SKILLS.

TECHNICAL SKILLS

Languages : C/C++, Java, Python, C#
Web Technologies : ASP.NET, JavaScript, AngularJS, HTML5, CSS3, Bootstrap CSS.
Databases : SQL Server, RDS, NoSQL : MongoDB, Intersystem Cache.
Frameworks : Django, Jasmine, .NET, DropWizard, Jersey, REST
Tools : Chutzpah, SIFT, CImg, Lucene, Stanford NLP, Travis CI, AWS Code Deploy, Maven

INTERNSHIP EXPERIENCE

Atlas Healthcare Software India Pvt. Ltd, Coimbatore, India

Jan 2013 –Jun 2013

Software Developer - Intern

Completed training on the product (LabWorks), HL7 standards, HIPPA security standards. Developed an add-on tool for the live application which lets the physician / lab attendants edit the diagnosis codes for tests directly saving hours of work. Migrated bug fixes from older version to newer versions.

WORK EXPERIENCE

Indiana University Bloomington

Aug 2015 –Dec 2016

Associate Instructor

Courses Search Informatics, Python (Basics), Python (Advanced)

Roles

- Handled labs for students to give them a practical approach to the problems.
- Assisted the professor in designing the course and graded the works of students.

Atlas Healthcare Software India Pvt. Ltd, Coimbatore, India

Jun 2013 –Jun 2015

Associate Software Developer

Products LabWorks, Patient Portal 2.0, Basic Analysis and Reporting (BAR) and Patient Result Repository (PRR)

Roles

- Worked on designing and implementing major release items and enhancements for the product LabWorks including HTML5 support, tool tip window and security improvement.
- Worked with the team to revamp the product 'Patient Portal' using AngularJS, Bootstrap CSS and ASP.NET. This product let the patients view their medical records from a browser.
- Actively involved in integrating Basic Analysis and Reporting module with LabWorks.
- Wrote scripts for upgrading clients from older version to newer version without losing any data.
- Wrote unit test cases in Jasmine framework to ensure continuous integrity of the products.

CO-CURRICULAR ACTIVITIES and ACHIEVEMENTS

- *Event Coordinator- Registration & Hexathlon*, Anokha, an Annual Tech fest organized by Amrita Vishwa Vidyapeetham, Coimbatore.
- *Volunteer*, ABC campaign, a cleanup drive launched by Amrita University to ensure a cleaner world, Coimbatore
- *Volunteer*, Junior Red Cross, a Non-Governmental Organization for youth empowerment, Erode