

Moutupsi Paul

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Education

SUNY Stony Brook University

MS in Computer Science, 3.88/4

Courses: Analysis of Algorithms, Operating Systems, Artificial Intelligence, Computer Networks, Network Security, Machine Learning, Natural Language Processing, Words and Pictures (Vision and ML)

Stony Brook, NY

Aug 2012–Dec 2013

National Institute of Technology

B.Tech in Computer Science, 8.66/10

Courses: Data Structures, Algorithms Design and Analysis, Operating Systems, Computer Networks, Theory of Computation, Parallel Programming, Compilers, 8085/8086 Microprocessors, Computer Architecture, Network Security, Data Mining.

India

Jul 2005–Jun 2009

Experience

Microsoft

Intern

Bing, Indexing and Knowledge, Ranking and relevance of Related Entities

Redmond, USA

Jun 2013–Aug 2013

Samsung Electronics

Senior Software Developer

Common Services Framework, Smart Devices Networking

Bangalore, India

Sep 2011–Aug 2012

Mcafee India Pvt. Ltd

Software Engineer

Performance Evaluation and Functional testing

Bangalore, India

Jun 2010–Sep 2011

Sun Microsystems

Intern

National Institute Of Technology, Campus Ambassador

India

Jun 2007–Jul 2008

Projects

Ranking and relevance of Related Entities.....

C# and SCOPE: My intern project at Bing was focussed on improving the relevance of Related entities. I took a segmented approach and along with cosearch, covisit user data, incorporated information from various knowledge bases like wikipedia, lastfm, Satori(Bing's knowledge graph) to improve relevance of various segments like Musicians, Movies, Movie Cast, Companies, Spouses etc.

Webpage Classification.....

Python, Scikit framework: Machine Learning class project. Explored different text based features like **ngrams** and non-text features like **hyperlinks, hypertext, neighbour links** etc. using classification technique like **Naive Bayes, SVM, semisupervised learning** on CMU's WebKB dataset.

JOS Lab.....

C: This project was undertaken as a part of OS coursework in Stony Brook. JOS is a simple Linux like OS but much less complicated and has a **micro kernel**. Throughout the course work we built in different functionalities of Kernel namely Paging, Processes, Multiple CPUs, IPC, and also extend to support File system and network.

Data Sciences Lab.....

Python, Java: This project is done as a part of News and Blog Analysis Lab , Stony Brook, under the guidance of Dr. Steven Skiena. This project deals with **Embedded semantic Analysis** and **Exploring Linguistics relations in Word Embeddings**.

Timeline Detection of Movies from Scripts.....

Java, Python : This project explores text based features in a Movie script and successfully use them to identify which year the movie was produced. We mainly used **statistical** and **stylometric**(style of writing) based features

to help classifier distinguish between movies in different era.

Face recognition using captions.....

Matlab: In this project we exploited the caption associated with a photo to improve face recognition. We used a combination of facial features and NER. The main techniques used was clustering.

Common Services Framework.....

Java, RDF: The goal of the project is to create a common framework for all SNS based (Samsung) services using Web development techniques, which will allow new **SNS services** an easy integration with already existing SNS data and support for multiple platforms. My contribution in the project was towards designing an **RDF based solution** to store and manage user data.

Smart Device Networking.....

Android, Java, Javascript: This project attempts to converge all smart devices of a user and enable seamless interaction. Another goal of the project is to enable a rich **recommendation system** for multimedia, web content and apps. My initial contribution in this project was to design and develop services that can collect data from user interfaces (**Android** hand held devices, **TV, Chrome**). This acts as input data to recommendation Engine. In the later part of the project I also contributed towards handling **XMPP messages** from the server to allow actual convergence amongst device nodes.

Loadable Kernel Module in JOS.....

C, ELF binary: This project's purpose is to build a framework in JOS to support **Loadable Kernel Modules**. We build functionalities like insmod, rmmod in JOS and support installation of re-locatable of object modules as part of Kernel. This project required extensive understanding of **ELF** binary format.

Virus Scan core.....

VBA, shell scripting: This is the crux of all McAfee anti-virus products, the chief components being the anti-virus engine and user defined rules. As a part of quality assurance team my chief responsibility was contribution towards **performance evaluation** and **efficiency analysis** of McAfee Virus Scan Core and functional feature testing of modules like **Script scanner. Email Scanner**.

Email Scanner tools.....

VBA, shell scripting: Develop tools to test functionality as well as performance of the module. I had to build an **email blasting tool** on the lines of blast.exe with additional functionality to send blasts of MIME messages as well. This is done as an MS office plugin written in VBA.

Computer skills

Programming: C, JAVA

Scripting: Python, C#, JavaScript, CSS, XML, HTML, MATLAB

OS: Unix, Linux, Android, Windows, JOS

SCM: Git

Others: XMPP, REST, Chrome Extension, Socket programming, RDF (using Jena API)

Awards and Achievements

May 2010: Awarded **best performer** in the batch during **Aricent training program PRISM**.

May 2010: Awarded the **best project**(Tour guide, Symbian app, Python)during Aricent training program PRISM.

Feb 2010: Graduate Aptitude Test in Engineering(**GATE**)(Nation-wide, India) with **99.89** percentile.

2005: Stood **8th** during Senior Secondary exam from AHSEC (Assam Higher Secondary Education Board).

2005: **Topped** (in the state) in **Physics** during Senior Secondary Exam from AHSEC.