Ayush Jaiswal

Curriculum Vitae

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Education

2014	**_Bachelor of Technology in Computer Science and Engineering_**, _National Institute of Technology Calicut, Kerala, India._ CGPA – **9.55 on a scale of 10**
2010	**_ISC_**, _Assembly of God Church School, Park Street, Kolkata, West Bengal, India_ Class XII examination, Score – **97%**
2008	**_ICSE_**, _Purwanchal Vidya Mandir, Kolkata, West Bengal, India_ Class X examination, Score – **94.2%**

Areas of Interest

- Machine Learning
- Data Mining
- Natural Language Processing
- Information Retrieval

Independent Course Work

- Certificate course in SUN's Core Java, NIIT (2007)
- Introduction to Artificial Intelligence (Online), Sebastian Thrun & Peter Norvig
- Machine Learning (Online), Andrew Ng
- Natural Language Processing (Online), Dan Jurafsky & Christopher Manning

Internship

Research Scholar at Information Sciences Institute, University of Southern California (May-July, 2013): My project was "Location Prediction with Sparse GPS Data". The internship ended with a poster presentation.

Projects

Explicit Semantic Analysis for Computing Semantic Relatedness of Biomedical Text: Using Explicit Semantic Analysis to develop a method for computing the semantic relatedness of text in the biomedical domain that outperforms the current state-of-the-art in this domain.

Location Prediction with Sparse GPS Data: This was my project at Information Sciences Institute, University of Southern California when I was doing a research internship there, under Professor Craig A. Knoblock, in the summer of 2013. Huawei Technologies provided us with a small and sparse dataset comprising of data collected by various sensors of a mobile phone using an app. My work consisted of analyzing the data, trying to solve the problem of sparseness in GPS data, and to apply methods developed for dense data on sparse data to see how well they work and how they can be modified.

Coreference Resolution System: A coreference resolution system, based on A Multi-Pass Sieve for Coreference Resolution by Raghunathan et al. The system was implemented from scratch in Python but also used Stanford Parser, JPype (a Python interface to Stanford Parser), and Stanford NER. This was a course project for the Natural Language Processing theory course.

Coreference Resolution for Keyphrase Extraction: Trying to improve keyphrase extraction by applying coreference resolution. I was working on this project with Nicolai Erbs of Technische Universität Darmstadt. Applying coreference resolution did not worsen the accuracy of keyphrase extraction on the datasets that we tried. Work is still going on on this project, and the code is yet to be tested on more datasets, but I am not working on it currently.

Simple Integer Language (SIL) Compiler: A compiler for a simple and strongly typed language (SIL) running on a hypothetical machine based on the MIPS machine architecture. This was a course project for the Compiler Design Laboratory, developed in C using flex and bison tools.

Handwritten Character Recognizer: An Artificial Neural Network based handwritten character recognizer

developed using OpenCV in Python. This was a course project for Pattern Recognition theory course.

Language Identifier: A Naive-Bayes based language identifier, built from scratch in Java, that can identify the language of a document from 10 European Languages. More languages can be added to the identifier without having to change the code. This was a small independent project.

Koder's Haven Website and Discussion Forum: A website developed for Koder's Haven, an active group of programming enthusiasts in my college. This project was done in the third semester of B.Tech. It includes a discussion forum where people can post questions, answers and comments. The website employs the use of MathJAX, a LaTeX rendering technology that allows a good representation of mathematical expressions. It also includes a Math-cum-Code toolbar for users not familiar with LaTeX.
URL: http://athena.nitc.ac.in/kh

Technical Skills

Programming Languages	Python, Java, C, MIT-Scheme (LISP)
Natural Language Processing	NLTK, DKPro (basic)
Web Development	HTML, CSS, JavaScript (basic), PHP (basic)
Databases	MySQL
Content Management Systems	Wordpress, question2answer
Version Control System	Git [*github.com/ayushjaiswal*]
Operating System Platforms	Linux (Ubuntu), Microsoft Windows

Achievements

- TCS Best Outgoing Student Award, NIT Calicut 2014
- Prof. P.M. Jussay Award for The Best Outgoing Student, NIT Calicut 2014
- Viterbi - India 2013 award for internship at Information Sciences Institute, University of Southern California
- DAAD WISE 2013 award for internship at Technische Universität Darmstadt [could not accept]
- Selected for Summer Research Fellowship Program 2013, Indian Academy of Sciences [could not accept]
- Secured 1st rank in 7th semester *(SGPA: 10 on 10)* of B.Tech.
- Secured 1st rank in 6th semester *(SGPA: 10 on 10)* of B.Tech.
- Secured 2nd rank in 5th semester *(SGPA: 9.70 on 10)* of B.Tech.
- Secured 1st rank in 4th semester *(SGPA: 9.81 on 10)* of B.Tech.
- Secured 1st rank in 3rd semester *(SGPA: 9.55 on 10)* of B.Tech.
- Secured 1st rank in 12th standard in school for ISC, 2010
- Secured 2nd rank in 10th standard in school for ICSE, 2008

Activities

- Secretary – Computer Science and Engineering Association (CSEA), NITC (2013-2014)
- Apple Campus Representative, NITC (2013-2014)
- Student Representative – CodeChef NITC Chapter (2013-2014)
- Google Student Ambassador, NITC (2012-2013)
- Treasurer – ACM Student Chapter, NITC (2012-2013)
- Executive – Computer Science and Engineering Association (CSEA), NITC (2011-2013)
- Conducted Python classes over 7 weeks that was attended by B.Tech. and M.Tech. students
- Member of Program Committee, Ragam 2011, Cultural Fest, NITC
- House Captain – 10th Standard (2007-2008)
- School Prefect – 12th Standard (2009-2010)

Webpage   http://people.cse.nitc.ac.in/ayush

References

- Dr. Vineeth Paleri, Professor, NIT Calicut   email: vpaleri@nitc.ac.in
- Vinod Pathari, Assistant Professor, NIT Calicut   email: pathari@nitc.ac.in