Zeon Trevor Fernando

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Key Competencies

Information Retrieval, Data Mining, Machine Learning, Web Services

Education

Expected Winter 2016 — **Leibniz Universität Hannover, Germany** — **Master of Science**
Internet Technologies and Information Systems - Full scholarship, GPA - 1.2/5.0

2010 - 2014 — **Vellore Institute of Technology, India** — **Bachelor of Technology Hons.**
Computer Science and Engineering, CGPA - 9.1/10.0

Professional Experience

Oct 2014 - Present — **Research Assistant**, *L3S Research Centre*, Leibniz Universität Hannover, Germany

- Development and maintenance of the collaborative search and sharing platform LearnWeb.
- Research project on social web archives prototypes to help build your personal archive of web collections and interfaces to explore the same.
- Mentoring Bachelor Thesis student on topics related to "Open Educational Resources" (Integration of *LORO* to *LearnWeb*) and "Semantic Web" (Development of a generic *SparQL crawler*).

Jan - July 2014 — **Bachelor Thesis**, *L3S Research Centre*, Leibniz Universität Hannover, Germany with a full scholarship — **Mentor**: Prof. Dr. Wolfgang Nejdl

- Developed a REST API to capture and document search processes in keyword based search systems.
- Designed a search history interface in the LearnWeb platform to help visualize the captured search processes.

May - July 2012 — **Research Assistant**,*Centre for Scientific and Complex Systems Modeling (SCI-SYM)*, Dublin City University — **Mentor**: Prof. Heather J. Ruskin

- Developed an interactive graphical module that generates a network to help understand the correlation between epigenetic and genetic events during the onset of colon cancer.
- This module was implemented using the framework CytoscapeWeb for the StatEpigen Database.

Publications

August 2014 — **Zeon Trevor Fernando**, I Sumaiya Thaseen, Ch.Aswani Kumar,**"Network attacks identification using consistency based feature selection and self organizing maps",** Published in proceedings of 1st IEEE International Conference on Networks and Soft Computing, India 2014

July 2013 — **Zeon Trevor Fernando**, Priyank Trivedi, Abhinandan Patni, Priyal Trivedi, **"DOCAID: Predictive Healthcare Analytics using Naïve Bayes Theorem",** Published in proceedings of 2nd Student Research Symposium, 2nd IEEE International Conference on Advances in Computing,Communications and Informatics, India 2013

Technical Skills

Languages	JAVA, HTML, CSS, JavaScript, Python, C, C++
Frameworks	PrimeFaces, Java Server Faces
Open Source	Lucene, Terrier, Octave, MySQL
Platforms	Windows, Mac OS X, Linux

Key Projects

Master's Research Project — **Temporal Diversification of Search Results (In Progress)**.

- Developed ranking algorithms to model four temporal intent classes (Past, Recent, Future, Atemporal) for a given search topic. Also, a ranking model to retrieve a diversified set across all the intents.
- Made a submission to Temporally Diversified Retrieval Subtask (NTCIR-12 Temporalia 2).

Bachelor's Mini Project — **Enhanced ROCK: Improvement to ROCK hierarchical clustering algorithm**.
The Robust Clustering Algorithm for Categorical Attributes (ROCK) was improved to provide increased purity of 90% in clusters by comparing the inter and intra-cluster goodness measure.

Advanced DBMS — **Reverse Query Generation**.
Developed a system which generates all possible SQL queries from the result and database given as input.

Database Systems — **Kd-trees build algorithm using Mathematical Mean**.
Mathematical mean used for constructing the Kd tree instead of median, which helps produce a balanced tree. This provides faster search and indexing in Kd-trees.

Scholastic Achievements

May 2012 **VIT Academic Excellence Award**, *Ranked 3rd out of 108 for the academic year 2011-2012.*

May 2008 **National Level - National Talent Search Examination**, *Among 1% of students from all across India to clear the examination.*

March 2008 **Database Programming Course**, *Oracle Academy.*

Extra-Curricular Activities

2011-2013 **Member**, *Student Council*, VIT University.

2012 **President**, *University GNU/Linux Users Group* .

Sept 2012 **Chief Organizer and Secretary General**, VIT Chennai Model United Nations Conference '12.

Selected Coursework

Computer Science — Algorithm Design and Analysis · Advanced Methods of Information Retrieval · Software Engineering · Temporal Information Retrieval · User Modeling and Personalization · Advanced Database Management Systems · Web Science · Machine Learning(Coursera)

Mathematics — Graph Theory and its Applications · Discrete Mathematical Structures · Applied Probability, Statistics and Reliability · Linear Algebra

References

Prof. Dr. Wolfgang Nejdl, *Director of L3S Research Centre and Professor of Computer Science*, Leibniz University, Hannover

Prof. Heather J. Ruskin, *Professor of Computer Science*, Dublin City University, Ireland