Dinesh Prasanth S H

Résumé

2/855, Moovendar Nagar, Bagalur Road,
Hosur, Tamil Nadu, India - 635109
☎ *+91 96207 52210*
✉ *dineshprasanth.sh@gmail.com*
⌂ *Portfolio : www.dineshprasanth.com*

Academic Qualification

2009 - 2013	Bachelor of Technology (B.Tech) in Computer Science & Engineering with First Class from National Institute of Technology, Tiruchirappalli (NIT-T), Tamil Nadu, India
CGPA	7.65/10 Senior year GPA 7.93/10

Work Experience

Aug 2013 - present	Software Development Engineer, Amazon Instant Video Team, Amazon Development Center, Bangalore, India
May 2012 - Jul 2012	Software Development Intern, Marketing Team, Microsoft Development Center, Hyderabad, India

Academic Publications

Topic	**Parallel Heuristic Graph Matching Algorithm for Task Assignment Problem in Distributed Computing Systems** (Mentored Research Project)
Summary	Parallelizable modules of the well-known Heuristic graph matching algorithm, A-star, were discovered to optimize the Task Assignment problem. Experimental setup, using *Message Passing Interface*, produced near-optimal task assignments ($>90\%$) in all representative test cases obtained at roughly one-third effort of the sequential task assignment algorithm.
Conference	IEEE - International Conference on Computer & Information Science, 2012
Authors	Mohan, R.; Gopalan, N.P. ; Prasanth, S.H.D. ; Sanyam, S.; Varma, S.R.

Topic	**Diffused RED: Improving RED using Error Diffusion** (Undergraduate Thesis)
Summary	Improved Random Early Detection using Error Diffusion technique while computing dropping probability of packets during network congestion. Diffused RED algorithm was experimented using *Network Simulator* which resulted in a reduced variance of Average queue size and a better trade-off for 'Utilization vs Mean queuing delay' than actual RED algorithm.
Paper	Confidential Link (Under conference review)
Authors	Mala, C.; Prasanth, S.H.D.; Sastivel, L.; Vignesh, B.

Topic	**A Backtracking Approach for Semantic Matchmaking Algorithm in Web Service Discovery** (Research Project)
Summary	Proposed a novel backtracking approach for match making algorithm used in service discovery that proved to execute in a much better running time (order N) at the cost of precision rate. A detailed study of factors and parameters involved in the algorithm was conducted to discover suitable environments that can make best use of the algorithm.
Conference	IEEE - International Conference on Circuits, Power and Computing Technologies, 2013
Author	Prasanth, S.H.D.

Projects

- **Development of various livingroom device applications**   (Amazon Instant Video)
  Worked on various feature developments including authentication and purchase flows for platforms including Youview, Sony Bravia, etc. Earned ownership over Sony Bravia, a platform serving more than a million customers. Independently developed IMDB module for a service responding to Amazon

Instant Video client applications. Attained proficiency in various client operations such as video streaming, interface development, clickstream analysis, multimedia caching, etc. Currently entrusted to undertake the feasibility research of a cutting edge interface for high performance HTML5 devices.

- **Traffic Manager for Azure cloud service**
  (Software Development Internship Project reporting Mr. Vikrant Pundir, Principal Dev Lead, Microsoft India)
  Worked on Microsoft's Email Interchange Azure Project, implementing, performance testing and analyzing impacts of Traffic Manager for the service, thus cost saving $34,000 p.a. Conducted a brown bag on my architecture and obtaining team's buy for next release version.
- **Ray Tracer capable of rendering a *Cornell box data***
  (Research Internship under Dr. Jaya S Nair, International Institute of Information Technology, Bangalore)
  A C++ three-dimensional object renderer that achieves visual realism, requiring an advanced understanding of Optics and Coordinate geometry to construct, was implemented using the widely acknowledged *backwards ray tracing* algorithm.
- **Pragyan Content Management System** (Open source project)
  Contributed for a full-featured modular CMS using PHP5 and MySQL that powers NIT-T's internet and intranet websites. Developed modules, widgets and templates for the project.
- **Stock Exchange Simulator for share trading** (Django web application)
  Primary developer of virtual stock market application built using Django, PHP, MySQL for an online event 'Dalal street' which features buy, sell, trade and mortgaging shares between players.
- **Featured website design and template development:**
  - Metro themed light and minimalistic website built for Pragyan 2013 event
  - Apple themed website built for Pragyan 2012 event as a *Steve Jobs* tribute
- **Other academic projects:**
  - Implemented several Language Models and Translators as part of the *Natural Language Processing* course on Coursera using Python (submissions went through rigorous testing before acceptance)
  - Bayesian Classifier for Salary Prediction of outgoing students based on several parameters
  - Parallel Simulation of Triple DES encryption algorithm on a 2D Mesh Architecture

Awards & Achievements

- Earned a **full-time offer** as Software Development Engineer from Microsoft, India based on my internship performance
- Technological initiatives as the **Head of Computer support** of Pragyan'13 (International techno-managerial festival) were published by various English dailies like 'The Hindu' and 'Times of India'. An exclusive one-one interview on the show 'Young Innovators' was also aired by All India Radio.
- Award winning paper on Cloud computing that studied the personal cloud server setup over insitute's LAN. Presented at renowned institutes such as Anna University, Amrita University and VIT, Vellore.
- Received AIEEE (All India Engineering Entrance Examination) scholarship (2009) for securing a rank among top 1% where more than 800,000 students compete
- Granted a fully-funded **Research Internship** in Computer Graphics at International Institute of Information Technology, Bangalore.

Programming Skill Set

Primary	C, C++, Java, HTML5, Javascript, CSS3, Photoshop
Secondary	PHP, Python, Flash
Packages	OpenGL, Message Passing Interface, Pthreads, Network Simulator-2, GCC Makefile

Positions of Responsibility

- Project owner of Amazon Instant Video application for Sony Bravia
- Head, Central Web Maintenance Team of NIT Trichy (Delta)
- Head, Design team of Cultural Festival of NIT-T (Nittfest'13)
- Executive member of the Social Responsibility Organization, Rotaract Club
- Active contributor of Fine Art exhibitions of Trichy