

ASHLEY ANTHONY FERNANDES

Email: ashley@cs.jhu.edu

Education

Master of Science in Engineering, Computer Science (GPA 3.86):

Dec 2005

Johns Hopkins University, Whiting School of Engineering, Baltimore, MD

Bachelor of Computer Engineering (First Class Honours with Distinction):

Sep 2001

Padre Conceicao College of Engineering, Goa, India (under Goa University)

Skills

C, C++, Javascript, SQL, UNIX (Linux, Solaris), shell scripting

Work Experience

Bloomberg LP, New York, NY

R & D Financial Software Developer

Mar 2006 – Present

- Responsible for development and maintenance of UI for Execution Management System (EMS), that was voted “Best Execution Manager” by Waters Financial Technology Intelligence, using C, C++, Fortran, and Javascript
- Actively participated in design and prototyping of new version of EMS, called EMSX
- Implemented several parts of EMSX, including trading ticket
- Ported trading ticket and infrastructure to new platform
- Involved in design of new trading tickets
- Implemented “Futures Trade Blotter” for EMS, providing support for trading of futures and bundles
- Implemented “Basket Navigator” view for EMS, making dealing with baskets of securities easier
- Designed and wrote multi-process server to improve large-scale subscription time of clients to Volume Weighted Average Price (VWAP) data from 7 min. to 1 min. and 20 sec.
- Involved in hiring, training, and mentoring of new R & D employees

Bloomberg LP, New York, NY

R & D Summer Intern

Jun 2005 – Aug 2005

- Redesigned a database access library, making it easy for implementors to follow and simple for programmers to use
- Wrote database access API's in C/ESQL to access data from Informix according to the above design
- Improved the efficiency of business logic in the news backend and reduced the number of hits to the database
- Wrote a parser of configuration files in XML using C/Expat

Sapna Group, Goa, India

Software Engineer

Apr 2003 – Aug 2004

- Building specifications for (through client interaction), architecting, developing, and deploying Content Management System powered ebusiness websites using PHP, Javascript, Apache, and MySQL:
 - Ten-language website for Verbatim Europe, Egham, UK (www.verbatim-europe.com), allowing customers easy access to product information, downloads, and answers to questions
 - Online image libraries for Costa Coffee, Dunstable, UK (www.costapix.com) and Moog, Moog & Morgenstern, Koblenz, Germany (www.mmm-bilddatenbank.de), providing them with a centralized, searchable, and manipulable database for their images
 - Website for Tinies Childcare, London, UK (www.tinies.com), enabling parents to find childcare providers and nannies to find jobs and training courses
 - Customizable websites for four divisions of Orckid Design and Marketing, Staines, UK (www.orckid.com), allowing each division to showcase its services online

National Institute of Oceanography (NIO), Goa, India

Project trainee

Sep 2001 – Apr 2003

- Responsible for evaluation and selection of new software and technology to solve problems
- Developed a system for interactive 3D visualization of bathymetric and elevation data using OpenGL, used to visualize a 5-minute resolution world bathymetric dataset with over 9 million grid points, featuring a flythrough that has helped scientists to better understand the features of the ocean floor
- Used Perl-Mason on IIS 5.0 with PostgreSQL and Gnuplot to provide easy access to cruise data and related plots on NIO's website and used the Live Access Server and Vis5d+ for management and visualization of gridded oceanographic data
- Wrote Perl scripts to analyze the logs of NIO's Internet proxy and email servers and generate detailed statistics used for accounting and billing
- Programmed the Cygnal C8051F005 microcontroller using C to be a general purpose data logger

Academic Projects

- Unsupervised learning to classify motion data from a simulated surgical task on the daVinci® Surgical System
- GPS-based client server application implemented over JHU's Wave Relay mobile ad-hoc networking testbed to allow users to request pickups by JHU's shuttle service
- Memory allocator with object caching based on Slab Allocator
- Transactional block store based on Write Anywhere File Layout implemented over virtual disk partition
- 3D OpenGL based game and associated physics engine featuring inverse kinematics, whip simulation, and terrain/water/sky
- Mesh registration system including rigid and deformable registration
- Optical flow based motion tracker
- Instant messaging system featuring one-to-one chat and user administrable chat rooms

Activities

- Participant in BOB (Best Of Bloomberg) charitable activities, including distribution of food to the elderly, painting of schools, and gardening
- Mentor to high school student as part of the iMentor programme
- Actively involved in rural education on contraception, family planning, AIDS, nutrition, and environmental issues in India
- Webmaster for the Center for Summer Learning (www.summerlearning.org)
- Study Consultant and Academic Advisor, helping students with time management, study skills, test anxiety, writing skills, etc.
- Tutored students on a variety of computer science related courses
- Executive Committee member of the Indian Graduate Students Association (www.jhu.edu/igsa)
- Teaching Assistant (Unix Systems Programming - Fall 2005) and Course Assistant (Database Systems - Fall 2004), helping students with course material and grading tests and assignments
- Represented college in annual all-India IT meet "INFOFEST" 2000 & 2001 at Goa University, taking college to first place in 2001 (individual prizes won include 1st – quiz, 1st – OOP skills, 2nd – web page design)
- Participated in technical festival "Bits 'N' Bytes" 1999, at Goa Engineering College, India (prizes won include 1st – debate, 2nd – programming)