Michael Cleaver

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Summary

Seeking employment in a development position.
Currently obtaining a MS in Computer Science, expected in 2012.
Familiar with C/C++, PHP, Python, Linux, HTML(4/5), and CSS.
Relevant courses taken: Operating Systems I & II, Parallel Computing, Design and Analysis of Algorithms, Data Structures, Data Communications/Internetworking, Artificial Intelligence.

Education

M.S. in Computer Science, Expected 2012
GPA 3.5/4.0

B.S. in Computer Science, November 2010
Concentration in web design GPA 3.152/4.0

Experience

Teaching Assistant January 2011 to Present

- CS240A: Introduction to Comp. Sci.; CS210: Programming in C
- Instructed labs.
- Graded labs and lab projects.
- Lectured in professors' absence and proctored exams.
- Provided supplementary instruction for students during office hours.

Developer July 2011 to Present

- Worked on company's Android and backend application teams.
- Android – Focused on diplaying data pulled from backend server and implementing the designer's mockups as XML layouts.
- Backend – Resposible for integration with external services and general bug fixing.
- Utilized Eclipse IDE, Java, Python, Javascript, XML, HTML, Android OS, Mercurial, the Android dev tools, and Google App Engine.

Student Lab Manager September 2008 to November 2010

- Provided basic maintenance on computers and equipment.
- Rented out laptops, headphones, media readers, etc.
- Assisted patrons with technical problems.
- Proposed a new policy to save energy used by lab computers.
- Trained new employees.
- Entered and processed work orders.

Developer Summer 2009 Internship

- Developed a web-based abstract graph viewer for dynamically displaying data gathered from competitors' websites for use in tracking trends in page hits and sales.
- Introduced to and utilized Visual Studio, C#, ASP.NET, and Team Foundation Server

Freelance Computer Service June 2003 to September 2008

- Provided computer repair, networking support and programming services to individuals and small businesses including 2 local banks.
- Developed an intranet based account information viewer in PHP that allowed bank tellers to search for and view account records from a central server.
- Installed numerous network cable drops at multiple branches of both banks.

Computer Skills

Languages: C/C++, C#, Java, Python, PHP, ASP.NET, Javascript, HTML/XML, CSS, LaTeX, SQL

Software: Word, Excel, PowerPoint, Visual Studio, NetBeans, Eclipse, Git, Mercurial, Photoshop, InDesign, Dreamweaver, Flash, Unix, Linux, Windows, iOS, Android

Organizations

Association of Computing Machinery (ACM) National and OU Chapter System Administrator

Class Work

CS442 - Operating Systems and Computer Architecture I Fall 2010

In-depth coverage of computer operating systems and related computer architecture issues. Coverage of physical devices, interrupts, and communication between the computer and external hardware. Interfaces between user programs and the operating system, system calls, software interrupts, and protection issues. Context switching, process address spaces, and process scheduling. Process synchronization, interprocess communications, critical sections, and deadlock detection and recovery. Memory mapping, swapping, paging, and virtual memory.

- Wrote simple shell with support for piping and I/O redirection in C.
- Wrote a basic implementation of malloc, calloc, and realloc in C.

CS444 - Data Communications/Internetworking Winter 2011

In-depth coverage of computer-to-computer and program-to-program communication over modern computer networks focusing on the TCP/IP protocol family. Review of data communication issues, physical address binding, bridging, Ethernet, and Token Ring. Internetwork protocols, routing, domains, networks, and subnetworks. Transport protocols, reliability, flow control, retransmission, and acknowledgement. Distributed systems, server and client issues including verification, and authentication. High-level protocols and applications including electronic mail, network news, remote terminal interaction, and the World Wide Web.

- Wrote userspace IPv6 router in C++.
- Wrote email forging program in C.

CS462 - Database Systems Winter 2011

Introduces fundamental concepts in data modeling and relational database systems. Begins with the entity-relationship (ER) modeling technique as a tool for conceptual database design. The relational data model and relational algebra are introduced next, followed by the SQL query language for relational databases. Functional dependencies, normalization, and relational database design algorithms are then discussed.

- Studied relational databases and SQL.
- Worked with Oracle DB.

CS458 - Operating Systems and Computer Architecture II Winter 2011

Detailed discussion of virtual memory and backing stores. File system interfaces, implementation, and protection mechanisms. Process scheduling issues, policies, and mechanisms. Interprocess communication between programs on different computers. Distributed systems issues, examples, and implementation.

- Wrote userspace ext2 filesystem driver with built-in cat and ls utilities in C.
- Wrote userspace ELF binary analyzer in C.

CS512 - Parallel Computing Spring 2011

Studies different parallel structures to familiarize students with the variety of approaches to parallel computing and the strengths and weaknesses of each approach. Concentrates on understanding methods for developing parallel algorithms and analyzing their performance. The advantages and disadvantages of different methods for mapping algorithms onto several different parallel architectures will be studied. Algorithms discussed will include sorting, searching, and matrix operations.

- Wrote parallelized quicksort with pthreads in C.
- Wrote parallelized Mandelbrot fractal image sequence generator with OpenMP in C.

CS580 - Artificial Intelligence Fall 2011

This course covers the fundamental underpinnings of Artificial Intelligence (AI), including know ledge representation and search. Predicate calculus, state speace graphs, and heuristic search algorithms are presented. The AI programming languages, LISP and Prolog, are introduced. Current applications and research thrusts in AI are discussed.