Lewis Cawthorne

168 King George Way • Columbia, SC 29210 • (803) 394-6337 • LLC@acm.org

EDUCATION

Master of Engineering, Computer Science and Engineering   Dec 2014
University of South Carolina (USC), Columbia, SC
GPA: 3.5/4.0; Specialization: Information Security

Bachelor of Science, Computer Science   Aug 2011
University of South Carolina (USC), Columbia, SC
GPA: 4.0/4.0; Minor: Mathematics

Associate of Science, 4.0 High Honors   May 2009
Midlands Technical College, Columbia, SC

COMPUTER SKILLS

Languages: Java, Scala, Groovy, Python, C, C++, C#, Visual Basic, Haskell, Perl, Awk
Software: Java EE, Layered Architectures, Vaadin, Grails, Play Framework, Django, Agile Development, Selenium, Geb, HTML, CSS, Javascript, Hibernate, Spring, MySQL, Oracle 9i-11g, PostgreSQL, MS SQL, IntelliJ, Eclipse, Vim, Shell Scripting, LaTeX
Hardware: Cisco, Lucent, 3Com, Ascend, Netgear: routers & terminal servers
Operating Systems: Windows 3.0 through 10, GNU/Linux, Solaris, OS X
Graduate Level Security Coursework: Information Security, Internet Security, Information Warfare, Distributed Database Security, Principles of Cryptography

EXPERIENCE

Software Developer   Jan 2015 - Present
EXL Services, Columbia, SC
- Took an active role in an agile group with ten developers acting within a larger corporate organization to provide software and services to insurance domain customers
- Maintained, extended, and helped secure an existing Java EE 5 application on Oracle WebLogic Application Server and Java 1.6 backed by an Oracle 11g database
- Developed a new web application to provide insight to support technicians debugging general data import issues with JDK 8 and Java EE 7 technologies running on Glassfish 4.1 Application Server with a Vaadin GWT-based rich user interface accessing an Oracle 11g database and custom scripts to extract text log information
- Researched and made recommendations on ways to ease development team growth pains by better incorporating automated unit, integration, and acceptance testing
- Wrote, tested, and debugged a batch process based on preexisting procedural logic to on-board a new customer by cleaning, transforming, and importing 80,000 customer claim records which were split up to over half a million relational table entries; primarily handled through the creation and integration of new awk processing scripts, some modification of a C# account registration program, and slight PL/SQL customizations in the database to handle customer specific account logic

Teaching Assistant   Aug 2012 - Dec 2014
University of South Carolina (USC), Columbia, SC
- Fall 2014: Lecture Instructor for CSCE 212 - Intro to Computer Architecture
- Summer 2014: Lecture Instructor for CSCE 146 - Data Structures Using Java
- Spring 2014: Lecture Instructor for CSCE 212 - Intro to Computer Architecture
- Fall 2013: Lecture Instructor and Lab TA for CSCE 101 - Intro to Computing
- Spring 2013: Lecture Instructor for CSCE 204 - Program Design and Development
- Fall 2012: Lab TA for CSCE 145 - Algorithmic Design (Java)

Research Assistant
Aug 2011 - Dec 2014
Center for Information Assurance Engineering at USC, Columbia, SC
- Quantum Complexity Theory research advised by Dr. Stephen A. Fenner
- Analyzed algorithms which require quantum computers and how problems solvable via quantum algorithms, such as factoring, differ in structure from classical problems
- Studied quantum entanglement effects on classic two party game theory
- Investigated mutually unbiased bases for secure quantum key distribution
- Expanded a C program for analysis and graphing of lambda closure functions

REU Program Coordinator
Aug 2011 - Aug 2013
Research Experience for Undergraduates at USC, Columbia, SC
- Coordinated summer housing and activities for 10 undergraduate participants
- Guided participants through all steps of creating and submitting an academic paper
- Offered proofreading and advice on 10 papers from 7 different subareas

Undergraduate Research Assistant
Jun 2010 - Aug 2011
MLEG Lab at University of South Carolina, Columbia, SC
- Created SMEE, the Sorting Motif Extraction Engine, a biomedical text analysis service using Python for Natural Language Processing and Django web framework

Linux System Administrator
Feb 2010 - Jun 2010
EMR Technical Solutions, Columbia, SC
- Setup various server applications on three Linux servers
- Managed security on servers, including detection / elimination of prior intrusion

Network Administrator
June 1995 - Sept 2002
Wave Communications / Durocom / Volaris Online, Hickory, NC
- Lead the building of what quickly became a 3000-4000 customer Internet provider
- Maintained 14 high volume servers running multiple operating systems
- Participated in a 24-hour emergency response on call rotation
- Supervised a team of 20-40 technical support representatives
- Ultimately shared primary responsibility for a $10-million regional ISP with a co-administrator, which was acquired by a super-regional provider and then by Earthlink

Database Administrator
Apr 1992 - Nov 1996
Doulos Productions, Hickory, NC
- Created and managed a 100,000 record relational database
- Managed a VM386 based dumb terminal multiuser system

CERTIFIED   *CNSS 4011*, National Training Standard for INFOSEC Professionals

AWARDS   *Presidential Graduate Fellowship*, *University of South Carolina*   Aug 2012 - Apr 2014
Magellan Scholarship Winner, *competitive research funding*   Jan 2011 - Aug 2011
Outstanding Senior Award, *University of South Carolina*   Apr 2011
IBM Master the Mainframe Competition, *winner Parts 1 and 2*   Dec 2010
$\Upsilon\Pi E$ *Scholarship Winner*, *competitive scholarship*   Aug 2010

SOCIETIES   **ACM,** Association for Computing Machinery
GCC, Gamecock Cybersecurity Club
SLC, STARS Leadership Corps
ColaLUG, Columbia Linux Users Group
Upsilon Pi Epsilon ($\Upsilon\Pi E$) and **Phi Theta Kappa** ($\Phi\Theta K$) Honor Societies