

## WILLIAM GREGORY JOHNSON

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### EDUCATION

Georgia State University  
**Ph. D. in Computer Science** **Fall 2020**  
Dissertation: "Education Research Using Data Mining and Machine Learning with Computer Science Undergraduates"  
Advisor: Anu G. Bourgeois; Committee: Raj Sunderraman, Yubao Wu, Melinda K. Higgins

Georgia State University  
**M.S. in Computer Science** **2004**  
Thesis: "Relaxed Transaction Model for Composite Web Services Using XML."  
Advisor: Sushil Prasad; Committee: Raj Sunderraman; Erdogan Dogdu

University of North Alabama  
**B.A. in Computer Science** **1986**  
Minor: Mathematics

### CERTIFICATIONS / PROFESSIONAL DEVELOPMENT

University of Massachusetts, Amherst (online)  
**CDER – Center for Parallel and Distributed Computing Curriculum Dev and Ed Resources** **2020**  
5-day training program to integrate PDC in introductory CS classes

Microsoft Corporation  
**MCPD - Microsoft Certified Professional Developer** **2010**  
ASP.NET, Web Developer

Microsoft Corporation  
**MCSE - Microsoft Certified Systems Engineer** **1999**  
Windows Server Operating Systems

### AWARDS

Graduate Research Intensive Program Scholar – Georgia State University **August 2019**

Outstanding Graduate Teaching Award – Georgia State University **March 2019**

Brains and Behavior Neuroscience Fellowship – Georgia State University **May 2017**

Advisor of the Year – Georgia Perimeter College **May 2015**

Affordable Learning in Georgia Grant (PI) - \$10,800 - Georgia Perimeter College **August 2014– June 2015**

Office of Information Technology Grant (PI) - \$350 - Georgia Perimeter College **January 2012 – May 2012**

### EXPERIENCE

Georgia State University – Atlanta, GA (online)  
**University Lecturer of Computer Science**

- CSC-4350/6350 – "Software Engineering" (Instructor, 2 sections) **Spring 2021**
- CSC-1302 – "Principles of Computer Programming II" (Instructor) **Spring 2021**
- CSC-4350/6350 – "Software Engineering" (Instructor) **Fall 2020**
- CSC-1302 – "Principles of Computer Programming II" (Instructor, 2 sections) **Fall 2020**

Georgia State University – Atlanta, GA (classroom)  
**Graduate Teaching and Assistant of Computer Science**

- CSC-3210 – "Computer Organization and Programming" (Lab Instructor) **Spring 2020**
- CSC-4350/6350 – "Software Engineering" (Instructor) **Fall 2019**
- CSC-1302 – "Principles of Computer Science - II" (Lab Instructor) **Spring 2019**
- CSC-4350/6350 – "Software Engineering" (Instructor) **Fall 2018**
- CSC-4350/6350 – "Software Engineering" (Instructor) **Spring 2018**
- CSC-4350/6350 – "Software Engineering" (Teaching Asst.) **Fall 2017**
- CSC-4520/6520 – "Design and Analysis of Algorithms" (Teaching Asst.) **Summer 2017**
- CSC-4350/6350 – "Software Engineering" (Instructor) **Spring 2017**

Georgia Perimeter College – Clarkston, GA (classroom)

**Instructor of Computer Science**

Fall 2012 – Spring 2016

- CSC-1010 – “Introduction to Computing” (5 times)
- CSC-1300 – “Introduction to Computer Science” (11 times)
- CSC-1301 – “Principles of Computer Science - I” (5 times)
- CSC-1302 – “Principles of Computer Science - II” (9 times)

**Adjunct Instructor of Computer Science**

Fall 2011 – Spring 2012

- CSC-1300 – “Introduction to Computer Science”

American Sentinel University – Aurora, CO (online)

**Adjunct Instructor of Computer Science**

Fall 2009 – Fall 2011

- CSC105 – “Introduction to Computer Science”
- CSC130 – “Fundamentals of Programming with C++”

Excelsior College – Albany, NY (online)

**Adjunct Instructor of Computer Science**

Fall 2005 – Spring 2007

- IT418 – “Software Systems Analysis and Design”

PeopleNet, Inc.

**Software Engineer**

February 2011 – July 2012

Created data interfaces between their corporate scheduling system and customers’ time and attendance systems. Redesigned and programmed a new billing system to integrate their enterprise transaction systems with Quicken.

American Sentinel University

**Adjunct Faculty**

January 2010 – December 2011

StudioCom

**Software Developer**

April 2010 – May 2010

A developer and data analyst for an advertising agency and web campaign company using C# 3.5 classes to deploy SpringFramework.NET for loading data to a Vertica DBMS running in Amazon's cloud solution. I also created XML command files that controlled the ETL processes (.NET programs) to load into the data repository.

ChannelAdvisor Corporation

**Software Developer**

June 2008 – May 2009

A developer using a strict AGILE /SCRUM methodology with C#.NET 2.0/3.5, MS SQL 2005, and PostgreSQL 8. I also created web controls to validate data inputs, created and modified SQL stored procedures, used OOO models for data abstraction.

RaceTrac Petroleum, Inc.

**Software Developer**

October 2006 – May 2008

Conversion of classic ASP to .NET (1.1) and refactoring SQL procedures (over 30,000 lines) for reports in Lawson HR.

Excelsior College

**Adjunct Faculty**

March 2006 – July 2007

Echelongate, LLC.

**Owner**

May 2004 – January 2006

Designed, created, managed and implemented an IS project for a web services systems for client intake using Apache Tomcat, Microsoft IIS, JDBC for Microsoft SQL database on Small Business Server. Used UML to articulate the results from analyzed business needs and created interface layers in HTML, CSS, and JavaScript. Tested the software to meet specifications that were architected from discovery and requirement analysis cycles and develop the middleware using Java, Java servlets, and IIS. I delivered training classes on the end product and MS Office.

Graduate School –Georgia State University

**Student, tutor, research assistant**

August 2001 – April 2004

Microsoft Corporation

**Software Consultant**

March 1997 – July 2001

Ensured system integration to other client server systems using proven industry standard methodologies. Provided communications between executive and end user groups on a \$1.5M project. Analyzed and developed training courses for this web-enabled, multi-tier system. Used SDLC with industry methodology (Microsoft Solutions Framework) to deploy a .NET distributed application for the US Army Reserve Command.

#### **Systems Engineer**

Member of sales team focused on enterprise tier customers. Performed technical and knowledge transfer presentations related to business solutions for audiences of business "C suite" to technical users. I was a product evangelist with highest awards (125% of goal) for sales, account planning, and Internet strategy.

Federated Department Stores

#### **Systems Programmer and Analyst**

**March 1995 – March 1997**

Designed and supported Intranet solutions for Federated Department Stores (Bloomingdales, Bon Marché, Burdines, Macy's, and corporate.) I provided application support for Bon Marché division. Supported international buyer system in fifteen countries with over 850 Servers and 5000+ nodes. I improved existing and developed new procedures for network operations, intranet provisioning, and replication design of content.

Center for Disease Control and Prevention

#### **Programmer Analyst**

**August 1990 – March 1995**

I delivered national health conference presentations of information systems and designed workshops for computer developer and government official audiences. I administered the Windows network for the developers under my program management (4 employees) and had evaluation and hire authority of software consultants and implementation of a national public health information network. Internet technology research for NT Server (HTML, RPC, WWW, Encryption, etc.) Information system software design, and performed CIO duties (7 months) while position was hired.

US Department of Agriculture

#### **Programmer Analyst**

**March 1989 – August 1990**

I delivered database-programming support in the regional data center for systems on a Novell 3.x LAN with 150 nodes (WordPerfect, Lotus 123, dBase III+, and ZyIndex).

Tennessee Valley Authority

#### **Programmer Analyst**

**May 1985 – March 1989**

Evaluated database software for office automation. Implementation and data network design for a 3000 node broadband network of Wang computer systems. Installed and upgraded network design for capacity planning and agency growth of over 4000 employees.

### **PUBLICATIONS, PAPERS, AND PRESENTATIONS**

*Education Research Using Data Mining and Machine Learning with Computer Science Undergraduates*

PhD dissertation defense and presentation, [https://scholarworks.gsu.edu/cs\\_diss/163/](https://scholarworks.gsu.edu/cs_diss/163/)

Georgia State University, Atlanta

**2020**

*Teaching Strategies in Software Engineering Towards Industry Interview Preparedness*

CSERC '20: 9th Computer Science Education Research Conference (CSERC '20), Leiden, Netherlands;

DOI: [10.1145/3442481.3442500](https://doi.org/10.1145/3442481.3442500) ISBN: 978-1-4503-8872-6/20/10

**2020**

*Predictors of Performance in Computer Science Algorithms*

ICERI2020: 13th annual International Conference of Education, Research and Innovation, Seville, Spain;

DOI: [10.21125/iceri.2020.0513](https://doi.org/10.21125/iceri.2020.0513) ISBN: 978-84-09-17979-4

**2020**

*Data Mining and Machine Learning in Education with Focus in Undergraduate CS Student Success*

Doctoral Consortium: ICER 2018, Espoo, Finland; DOI: [10.1145/3230977.3231012](https://doi.org/10.1145/3230977.3231012)

**2018**

*Performance Impact of Computer Science Course Load and Transfer Status*

Poster: ACM SIGCSE 2018, Baltimore, MD; DOI: [10.1145/3159450.3162287](https://doi.org/10.1145/3159450.3162287)

**2018**

*What About Big Data and Nursing?*

Article: American Nurse Today, <https://www.americannursetoday.com/big-data-nursing/>

**2018**

*Query Implementations of High Dimensional Objects Using Space-Filling Curves*

Presentation for Data Mining Lab, Georgia State University, Atlanta, GA

**2016**

<i>Using Open Educational Resources to Develop a Flipped Course Model.</i> Presentation for the USG Teaching and Learning Conference, University of Georgia, Athens, GA	<b>2015</b>
<i>Using Mobile Technology in the Classroom.</i> Presentation for the GPC Technology Conference, Georgia Perimeter College, Clarkston, GA	<b>2014</b>
<i>What is Computer Science?</i> Presentation for the MESA workshops, Georgia Perimeter College, Dunwoody, GA	<b>2013</b>
<i>Computational Intelligence for a Decision Support System to Predict Nursing Coverage in a Geriatric Care Facility</i> Paper presented at the 9 <sup>th</sup> International Congress for Nursing Informatics, Seoul, South Korea	<b>2006</b>
<i>A Relaxed Transaction Model for Composite Web Services Using XML</i> Master's thesis defense and presentation, Georgia State University, Atlanta	<b>2004</b>

## LANGUAGES

English – native language  
 French – speak, read, and write with basic competence

## MEMBERSHIPS

Association of Computing Machinery (ACM) – Professional Level  
 ACM/Special Interest Group: Computer Science Education  
 Institute of Electrical and Electronics Engineers (IEEE) – Additional Groups: Computer Society and Education Society

## SERVICE

<b>Georgia State University</b>	
CS Undergraduate Curriculum Committee member	<b>Spring 2021 - current</b>
Bylaws Committee member	<b>Fall 2020 - current</b>
Quality Coordinator for Undergraduate Curriculum	<b>Fall 2020 - current</b>
Course Coordinator for CSC – 1302	<b>Fall 2020 - current</b>
Course Coordinator for CSC – 4350	<b>Fall 2020 - current</b>
Graduate Teaching Assistants Workshop	<b>Fall 2020 - current</b>
<b>Georgia Perimeter College</b>	
Faculty Advisor for Clarkston Computing and Engineering Club	<b>2012 - 2015</b>
Faculty Academic and Career counseling for students	
Campus Learning and Tutoring Center	
Communities in and Around Atlanta, GA	
<b>Five-Star Refugee Program</b>	<b>2001 – 2005</b>
I was a tutor for high school students that were relocated to the US from war-torn countries of the Middle East.	
<b>AID Atlanta</b>	<b>2000 – 2004</b>
I volunteered four hours a week to help with the mission's computer network, database systems, and PC maintenance.	
<b>Project Open Hand</b>	<b>1992 – 1994</b>
I volunteered Saturday mornings (five hours) to prepare meals to be delivered to people disabled with HIV related illnesses.	
<b>Atlanta History Center</b>	<b>1989 – 1991</b>
I volunteered six hours a week as a docent for the Swan House tours and special events.	