DWAYNE "CHRIS" BROWN, JR.

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EDUCATION

North Carolina State University

2015 - present

Ph.D. in Computer Science Advisor: Chris Parnin

North Carolina State University

2015 - 2017

M.S. in Computer Science

Duke University

2009 - 2013

B.S. in Computer Science, with Distinction Minor in African and African American Studies

INDUSTRY

Red Hat

Summer 2018

Raleigh, NC

Quality Engineering Intern

· Examined Federal Information Processing Standards (FIPS) compatibility and created Ansible roles to testing and installing Red Hat Satellite

Red Hat Summer 2017

Quality Engineering Intern

Raleigh, NC

Verified reported bugs, wrote automation tests, and helped test and maintain a new test automation framework satellite-populate for Red Hat Satellite 6

Summer 2016 Blackbaud

Software Quality Engineer Intern

Charleston, SC

· Used AppDynamics to create a monitoring dashboard, added documentation for Givalanche, and wrote C# code to fix bugs in Online Express

Bank of America 2013 - 2015

Python Developer

Charlotte, NC

· Wrote Python code to develop and maintain the Manual Adjustment Tool application

RESEARCH

Research Assistant

Fall 2018 - present

North Carolina State University

Raleigh, NC

· Integrating nudge theory in software engineering to encourage developer actions with Dr. Chris Parnin

Research Assistant

Fall 2017 - Spring 2018

North Carolina State University

Raleigh, NC

· Developing a bot to increase tool awareness and usage among developers with Dr. Emerson Murphy-Hill

Research Assistant

Fall 2016 - Spring 2017

North Carolina State University

Raleigh, NC

· Conducted user study analyzing recommendations between peers with Dr. Emerson Murphy-Hill

Independent Study

Fall 2016

North Carolina State University

Raleigh, NC

· Studied integrating automated program repair into computer science education with Dr. Guoliang Jin

${\bf Computer \ Science \ Undergraduate \ Research \ Fellow}$

Summer 2012 - Spring 2013

Duke University

Durham, NC

· Studied integrating computer science concepts into K-12 education with Dr. Susan Rodger

Distributed Research Experience for Undergraduates (DREU)

Summer 2011

Brown University

Providence, RI - Moss Beach, CA

· Researched applications for robotics in society with Dr. Chad Jenkins for the Computing Research Association DREU program

PUBLICATIONS

$Conference\ Papers$

Mining Specifications from Documentation Using a Crowd

SANER 2019

Peng Sun, Chris Brown, Ivan Beschastnikh, and Kathryn Stolee

Hangzhou, China

· International Conference on Software Analysis, Evolution and Reengineering

How Software Users Recommend Tools to Each Other

VL/HCC 2017

<u>Chris Brown</u>, Emerson Murphy-Hill, Justin Middleton, Esha Sharma

Raleigh, NC

· Visual Languages and Human-Centric Computing

Flower: Navigating Program Flow in the IDE

VL/HCC 2017

Justin Smith, <u>Chris Brown</u>, Emerson Murphy-Hill

Raleigh, NC

· Visual Languages and Human-Centric Computing

Weaving Computing into all Middle School Disciplines

ITiCSE 2014

Susan H. Rodger, <u>Dwayne Brown</u>, Michael Hoyle, Daniel MacDonald, Michael Marion, Elizabeth Onstwedder, Bella Onwumbiko, and Edwin Ward

Uppsala, Sweden

· Innovation and Technology in Computer Science Education

Workshops

Sorry to Bother You: Designing Bots for Effective Recommendations

ICSE 2019

Chris Brown, Chris Parnin

Montreal, QC, Canada

· International Conference for Software Engineering (paper)

Experimenting with and Integrating Alice 2.3 into many disciplines

SIGCSE 2013

Susan H. Rodger, Steve Cooper, Wanda Dann, <u>Dwayne C. Brown, Jr.</u>, Jacobo Carrasquel <u>Denver, CO</u>

· ACM Special Interest Group on Computer Science Education (presentation and demo)

Doctoral Symposium

Digital Nudges for Encouraging Developer Actions

BotSE 2019

Chris Brown, Chris Parnin

Montreal, QC, Canada

· International Workshop on Bots in Software Engineering

Posters

Integrating Computer Science into Middle School Mathematics

Susan H. Rodger, Dwayne C. Brown, Jr., Michael Hoyle, Michael Marion

SIGCSE 2013 Denver, CO

· ACM Special Interest Group on Computer Science Education

TEACHING

Python Instructor

June - August 2019

The Coding School

Virtual

· Tutored a high school student through the codeConnects teaching and mentorship summer program.

Java Tutor

August - December 2017

NC State CSC116: Introduction to Programming Java

Raleigh, NC

· Tutored students in the Introduction to Computing Java course through NC State Students and Technology in Academia, Research and Service (STARS)

Java Tutor

August - December 2016

AP Computer Science

Raleigh, NC

· Tutored a local high school student enrolled in AP Computer Science

Teaching Assistant

January - May 2016

NC State CSC216: Java Programming Concepts

Raleigh, NC

· Graded programming assignments and exams, held office hours for students at N.C. State

Teaching Assistant

August - December 2015

NC State CSC326: Software Engineering

Raleigh, NC

· Graded assignments and exams, held office hours, and taught lab sections at N.C. State

C Tutor

January - May 2015

Central Piedmont Community College

Charlotte, NC

· Tutored a student taking an introductory C programming class at CPCC

Alice Activity Day

March 23, 2013

Duke CSURF

Durham, NC

· Taught Alice programming to local 6th grade students in two 3-hour sessions for research study

Creating a 3D Interactive Story

February 22, 2013

 $Duke\ FEMMES$

Durham, NC

· Taught Alice programming to 4th-6th grade girls for Females Excelling More in Math, Engineering, and Science event

Adventures in Alice

November 30, 2012

Oak Grove Middle School

Winston-Salem, NC

· Taught Alice programming to three 6th grade math and science classes

SERVICE

NC State CSC PhD Recruitment Weekend

March 1-2, 2019

Volunteer

Raleigh, NC

· Volunteered for the computer science department PhD Recruitment Weekend for potential doctoral students

Bridge to the Doctorate Program

February 15, 2019

Graduate Student Panel

Raleigh, NC

Participated on a graduate student panel answering questions for NC Louis Stokes Alliance for Minority Participation (NC-LSAMP) students on what it's like to be a PhD student at NC State

All Things Open October 21-23, 2018

Raleigh, NC Volunteer

· Volunteered at the All Things Open open source conference

NC-LSAMP Undergraduate Research Conference

November 11, 2017

Raleigh, NC

Student Networking Volunteer

· Hosted a table during the networking session at the North Carolina Louis Stokes Alliance for Minority Participation Undergraduate Research Conference to speak to students and answer questions about graduate school

All Things Open October 23-24, 2017 Raleigh, NC Volunteer

· Volunteered at the All Things Open open source conference

Visual Languages and Human-Centric Computing

October 11-13, 2017

Student Volunteer

Raleigh, NC

· Volunteer for the VL/HCC 2017 conference hosted in Raleigh, NC

Blocks and Beyond 2017

October 10, 2017

Student Volunteer

Raleigh, NC

· Volunteer for the Blocks and Beyond workshop in Raleigh, NC

Open Source 101 February 4, 2017 Raleigh, NC

Volunteer

 \cdot Volunteered at the Open Source 101 open source conference

All Things Open October 26-27, 2016

VolunteerRaleigh, NC

· Volunteered at the All Things Open open source conference

Big Brothers Big Sisters

October 2014 - July 2015 Charlotte, NC Big Brother

· Volunteered as a mentor for Big Brothers Big Sisters of Greater Charlotte

PRESENTATIONS

DevConf.US August 15-17, 2019

"Sorry to Bother You! Effective OSS Recommendations"

Boston, MA

· Accepted talk presented at DevConf.US 2019 OSS developer community and technology conference

Free Open Source Software Interest Group

January 25, 2019

Lightning Talk

Raleigh, NC

· Presented my research as a lightning talk for the FOSS Interest Group meeting at NC State

Red Hat QECampX

October 10, 2018

"How to Improve Software Tool Discovery and Usage"

Raleigh, NC

· Accepted talk presented at the Red Hat QECampX quality engineering conference

Linux User's Group @ NC State

February 28, 2018

Lightning Talk

Raleigh, NC

· Presented my research as a lightning talk for the Linux User's Group

Intern Expo

August 2017, 2018

Red Hat

Raleigh, NC

· Showcase and demo internship projects to Red Hat employees

Laboratory for Analytic Sciences

November 29, 2017

Wednesday Research Meeting

Raleigh, NC

· Invited talk to present my research at the Laboratory for Analytic Sciences' weekly research meeting

Intern Showcase

August 2016

Blackbaud

Raleigh, NC

· Present the work completed during my internship to Blackbaud interns and employees

OTHER CONFERENCES

Computing Research Association URMD Grad Cohort Workshop

March 21-23, 2019

Computing Research Association

Waikoloa Village, HI

· Attended the CRA Underrepresented Minorities & Persons with Disabilities Graduate Cohort Workshop

Foundations of Software Engineering (FSE/ESEC 2018)

November 5-9, 2018

ACM

Orlando, FL

· Attended FSE 2018

National Society of Blacks in Computing (NSBC 2018)

August 9-11, 2018

Institute for African-American Mentoring in Computing Sciences

New Orleans, LA

· Participated in the NSBC 2018 conference

Open Source 101

February 17, 2018

All Things Open

Raleigh, NC

· Attended conference presenting introductory concepts and for open source software

National Society of Blacks in Computing (NSBC 2018)

August 9-11, 2017

Institute for African-American Mentoring in Computing Sciences

Atlanta, GA

· Participated in the NSBC 2017 conference

Foundations of Software Engineering (FSE/ESEC 2016)

November 14-18, 2016

Association for Computing Machinery

Seattle, WA

· Attended FSE 2016

HONORS AND AWARDS

NSF Travel Award

March 27, 2019

National Science Foundation Montreal, QC, Canada

· Received travel support to attend ICSE 2019

Graduate Merit Award August 2015

North Carolina State University

Raleigh, NC

· Received a graduate merit award for the CSC department at NC State

Goldman Sachs Research Scholar Summer 2012

Goldman Sachs Durham, NC

· Undergraduate summer research funded by Goldman Sachs

LeaderShape Summer 2012

Duke University Sophia, NC

· Accepted to attend the Duke University LeaderShape leadership retreat

Computer Science Undergraduate Research Fellowship

May 2012 - May 2013

Duke University Durham, NC

· Accepted into the Duke CSURF program to conduct undergraduate research with Dr. Susan Rodger

TECHNICAL SKILLS

Red Hat Enterprise Linux 7 Certified System Administrator

NC State Linux Users Group

Python Software Foundation

Linux Foundation

ACM and IEEE student member

Programming Languages Python, Java, C/C++/C#, Ruby, JavaScript, Bash, HTML, SQL

Tools and Technologies Git, Ansible, Jenkins, Linux, Windows, LaTeX, Android