

# DWAYNE “CHRIS” BROWN, JR.

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## EDUCATION

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|---|-----------------------|
| <b>North Carolina State University</b><br>Ph.D. in Computer Science<br>Advisor: Chris Parnin                          | <i>2015 - present</i> |
| <b>North Carolina State University</b><br>M.S. in Computer Science  | <i>2015 - 2017</i>    |
| <b>Duke University</b><br>B.S. in Computer Science, with Distinction<br>Minor in African and African American Studies | <i>2009 - 2013</i>    |

## INDUSTRY

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|---|--------------------------------------|
| <b>Red Hat</b><br><i>Quality Engineering Intern</i>   | Summer 2018<br><i>Raleigh, NC</i>    |
| · Examined Federal Information Processing Standards (FIPS) compatibility and created Ansible roles to testing and installing Red Hat Satellite            |                                      |
| <b>Red Hat</b><br><i>Quality Engineering Intern</i>   | Summer 2017<br><i>Raleigh, NC</i>    |
| · Verified reported bugs, wrote automation tests, and helped test and maintain a new test automation framework satellite-populate for Red Hat Satellite 6 |                                      |
| <b>Blackbaud</b><br><i>Software Quality Engineer Intern</i>   | Summer 2016<br><i>Charleston, SC</i> |
| · Used AppDynamics to create a monitoring dashboard, added documentation for Givalanche, and wrote C# code to fix bugs in Online Express                  |                                      |
| <b>Bank of America</b><br><i>Python Developer</i>   | 2013 - 2015<br><i>Charlotte, NC</i>  |
| · Wrote Python code to develop and maintain the Manual Adjustment Tool application  |                                      |

## RESEARCH

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| <b>Research Assistant</b><br><i>North Carolina State University</i>                                     | Fall 2018 - present<br><i>Raleigh, NC</i>     |
| · Integrating nudge theory in software engineering to encourage developer actions with Dr. Chris Parnin |   |
| <b>Research Assistant</b><br><i>North Carolina State University</i>                                     | Fall 2017 - Spring 2018<br><i>Raleigh, NC</i> |
| · Developing a bot to increase tool awareness and usage among developers with Dr. Emerson Murphy-Hill   |   |
| <b>Research Assistant</b><br><i>North Carolina State University</i>                                     | Fall 2016 - Spring 2017<br><i>Raleigh, NC</i> |
| · Conducted user study analyzing recommendations between peers with Dr. Emerson Murphy-Hill             |   |

## **Independent Study**

*North Carolina State University*

Fall 2016

*Raleigh, NC*

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

## **Computer Science Undergraduate Research Fellow**

*Duke University*

Summer 2012 - Spring 2013

*Durham, NC*

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

## **Distributed Research Experience for Undergraduates (DREU)**

*Brown University*

Summer 2011

*Providence, RI - Moss Beach, CA*

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

## **PUBLICATIONS**

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### **Conference Papers**

#### **Mining Specifications from Documentation Using a Crowd**

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

SANER 2019

*Hangzhou, China*

- International Conference on Software Analysis, Evolution and Reengineering

#### **How Software Users Recommend Tools to Each Other**

*Chris Brown*, Emerson Murphy-Hill, Justin Middleton, Esha Sharma

VL/HCC 2017

*Raleigh, NC*

- Visual Languages and Human-Centric Computing

#### **Flower: Navigating Program Flow in the IDE**

Justin Smith, *Chris Brown*, Emerson Murphy-Hill

VL/HCC 2017

*Raleigh, NC*

- Visual Languages and Human-Centric Computing

#### **Weaving Computing into all Middle School Disciplines**

Susan H. Rodger, *Dwayne Brown*, Michael Hoyle, Daniel MacDonald, Michael Marion, Elizabeth Onstwedder, Bella Onwumbiko, and Edwin Ward

ITiCSE 2014

*Uppsala, Sweden*

- Innovation and Technology in Computer Science Education

### **Workshops**

#### **Sorry to Bother You: Designing Bots for Effective Recommendations**

*Chris Brown*, Chris Parnin

ICSE 2019

*Montreal, QC, Canada*

- International Conference for Software Engineering (paper)

#### **Experimenting with and Integrating Alice 2.3 into many disciplines**

Susan H. Rodger, Steve Cooper, Wanda Dann, *Dwayne C. Brown, Jr.*, Jacobo Carrasquel

SIGCSE 2013

*CO*

*Denver,*

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

### **Doctoral Symposium**

#### **Digital Nudges for Encouraging Developer Actions**

*Chris Brown*, Chris Parnin

BotSE 2019

*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**

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### **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**

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### **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**

*Volunteer*

October 21-23, 2018

*Raleigh, NC*

- Volunteered at the All Things Open open source conference

### **NC-LSAMP Undergraduate Research Conference**

*Student Networking Volunteer*

November 11, 2017

*Raleigh, NC*

- 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**

*Volunteer*

October 23-24, 2017

*Raleigh, NC*

- Volunteered at the All Things Open open source conference

### **Visual Languages and Human-Centric Computing**

*Student Volunteer*

October 11-13, 2017

*Raleigh, NC*

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

### **Blocks and Beyond 2017**

*Student Volunteer*

October 10, 2017

*Raleigh, NC*

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

### **Open Source 101**

*Volunteer*

February 4, 2017

*Raleigh, NC*

- Volunteered at the Open Source 101 open source conference

### **All Things Open**

*Volunteer*

October 26-27, 2016

*Raleigh, NC*

- Volunteered at the All Things Open open source conference

### **Big Brothers Big Sisters**

*Big Brother*

October 2014 - July 2015

*Charlotte, NC*

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

## **PRESENTATIONS**

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### **Free Open Source Software Interest Group**

*Lightning Talk*

January 25, 2019

*Raleigh, NC*

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

### **Red Hat QECampX**

*"How to Improve Software Tool Discovery and Usage"*

October 10, 2018

*Raleigh, NC*

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

### **Linux User's Group @ NC State**

*Lightning Talk*

February 28, 2018

*Raleigh, NC*

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

**Intern Expo***Red Hat*

August 2017, 2018

*Raleigh, NC*

- Showcase and demo internship projects to Red Hat employees

**Laboratory for Analytic Sciences***Wednesday Research Meeting*

November 29, 2017

*Raleigh, NC*

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

**Intern Showcase***Blackbaud*

August 2016

*Raleigh, NC*

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

**OTHER CONFERENCES**

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**CRA Underrepresented Minorities & Persons with Disabilities Graduate Cohort Workshop***Computing Research Association*

March 21-23, 2019

*Waikoloa Village, HI*

- Attended the CRA URMD Grad Cohort Workshop

**Foundations of Software Engineering (FSE/ESEC 2018)***ACM*

November 5-9, 2018

*Orlando, FL*

- Attended FSE 2018

**National Society of Blacks in Computing (NSBC 2018)***Institute for African-American Mentoring in Computing Sciences*

August 9-11, 2018

*New Orleans, LA*

- Participated in the NSBC 2018 conference

**Open Source 101***All Things Open*

February 17, 2018

*Raleigh, NC*

- Attended conference presenting introductory concepts and for open source software

**National Society of Blacks in Computing (NSBC 2018)***Institute for African-American Mentoring in Computing Sciences*

August 9-11, 2017

*Atlanta, GA*

- Participated in the NSBC 2017 conference

**Foundations of Software Engineering (FSE/ESEC 2016)***Association for Computing Machinery*

November 14-18, 2016

*Seattle, WA*

- Attended FSE 2016

**HONORS AND AWARDS**

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**NSF Travel Award***National Science Foundation*

March 27, 2019

*Montreal, QC, Canada*

- Received travel support to attend ICSE 2019

**Graduate Merit Award***North Carolina State University*

August 2015

*Raleigh, NC*

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

**Goldman Sachs Research Scholar**  
*Goldman Sachs*

Summer 2012  
*Durham, NC*

- Undergraduate summer research funded by Goldman Sachs

**LeaderShape**  
*Duke University*

Summer 2012  
*Sophia, NC*

- Accepted to attend the Duke University LeaderShape leadership retreat

**Computer Science Undergraduate Research Fellowship**  
*Duke University*

May 2012 - May 2013  
*Durham, NC*

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

## TECHNICAL SKILLS

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**Red Hat Enterprise Linux 7 Certified System Administrator**  
**NC State Linux Users Group**  
**Python Software Foundation**  
**Linux Foundation**  
**ACM and IEEE student member**

<b>Programming Languages</b>	Python, Java, C/C++/C#, Ruby, JavaScript, Bash, HTML, SQL
<b>Tools and Technologies</b>	Git, Ansible, Jenkins, Linux, Windows, LaTeX, Android