

# 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

*Denver, CO*

- 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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### **Python Instructor**

*The Coding School*

June - August 2019

*Virtual*

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

### **Java Tutor**

*NC State CSC116: Introduction to Programming Java*

August - December 2017

*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**

*AP Computer Science*

August - December 2016

*Raleigh, NC*

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

### **Teaching Assistant**

*NC State CSC216: Java Programming Concepts*

January - May 2016

*Raleigh, NC*

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

### **Teaching Assistant**

*NC State CSC326: Software Engineering*

August - December 2015

*Raleigh, NC*

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

### **C Tutor**

*Central Piedmont Community College*

January - May 2015

*Charlotte, NC*

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

### **Alice Activity Day**

*Duke CSURF*

March 23, 2013

*Durham, NC*

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

### **Creating a 3D Interactive Story**

*Duke FEMMES*

February 22, 2013

*Durham, NC*

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

### **Adventures in Alice**

*Oak Grove Middle School*

November 30, 2012

*Winston-Salem, NC*

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

## **PRESENTATIONS**

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### **DevConf.US**

*"Sorry to Bother You! Effective OSS Recommendations"*

August 15-17, 2019

*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

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**DevConf.US 2019** August 15-17, 2019  
*Red Hat* Boston, MA

**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

**National Society of Blacks in Computing (NSBC)** 2017, 2018  
*Institute for African-American Mentoring in Computing Sciences*  
 Attended NSBC 2017 (Atlanta, GA) and NSBC 2018 (New Orleans, LA)

**Open Source 101<sup>1</sup>** 2017, 2018  
*Opensource.com* Raleigh, NC

**All Things Open<sup>2</sup>** 2016, 2017, 2018  
*Opensource.com* Raleigh, NC

**Foundations of Software Engineering (FSE/ESEC)** 2016, 2018  
*Association for Computing Machinery*

- Attended FSE 2016 (Seattle, WA) and FSE 2018 (Orlando, FL)

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<sup>1</sup><https://opensource101.com/>

<sup>2</sup><https://allthingsopen.org/>

- Attended the LeaderShape leadership retreat

## SERVICE

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**All Things Open** October 13-15, 2019  
*Volunteer* *Raleigh, NC*

- Signed up to Volunteer at the 2019 All Things Open conference

**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  
*Volunteer* *Raleigh, NC*

- Volunteered at the All Things Open open source conference

**NC-LSAMP Undergraduate Research Conference** November 11, 2017  
*Student Networking Volunteer* *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** October 23-24, 2017  
*Volunteer* *Raleigh, NC*

- Volunteered at the All Things Open open source conference

**Visual Languages and Human-Centric Computing** October 10-13, 2017  
*Student Volunteer* *Raleigh, NC*

- Volunteer for the Blocks and Beyond workshop and VL/HCC 2017 conference hosted in Raleigh, NC

**Open Source 101** February 4, 2017  
*Volunteer* *Raleigh, NC*

- Volunteered at the Open Source 101 open source conference

**All Things Open** October 26-27, 2016  
*Volunteer* *Raleigh, NC*

- Volunteered at the All Things Open open source conference

**Big Brothers Big Sisters** October 2014 - July 2015  
*Big Brother* *Charlotte, NC*

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<sup>3</sup><https://www.leadershape.org/>

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

## HONORS AND AWARDS

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### **DevConf Diversity Travel Scholarship**

*Red Hat*

June 25, 2019

*Boston, MA*

- Received travel support to attend DevConf

### **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

### **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**

**Programming Languages**

Python, Java, C, C++, C#, Ruby, JavaScript, Bash, HTML, SQL

**Tools and Technologies**

Git, Ansible, Jenkins, Linux, Windows, LaTeX, Android