Nischal Shrestha

NC State University
Raleigh, NC
nshrest@ncsu.edu
nischalshrestha.me

INTERESTS

Seeking research and engineering roles related to building interactive tools to help data scientists, software engineers, and end-users understand and analyze data effectively.

EDUCATION

2016-Present: **Ph.D. Candidate in Computer Science**, NC State University
- Advisor: Dr. Chris Parnin
- **Thesis**: Programmers can understand, explore, and debug data wrangling code flexibly when aided by *just-in-time learning tools* that accommodate multiple learning objectives.

2016-2018: **M.Sc. in Computer Science**, NC State University
2011-2015: **B.S. in Computer Science**, NC State University

TECHNICAL SKILLS

Programming: Python, R, Java, HTML, CSS, JavaScript, Android, MySQL, LaTeX
Research: Experimental Research Design, Qualitative & Quantitative analysis
Software: Visual Studio Code, RStudio IDE, Jupyter Notebook, Git, GitHub

SELECTED PUBLICATIONS

Conference Paper — *Unravel: A Fluent Code Explorer for Data Wrangling*
Nischal Shrestha, Titus Barik, Chris Parnin. UIST 2021.

Conference Paper — *Remote, but connected: How #TidyTuesday Provides an Online Community of Practice for Data Scientists*
Nischal Shrestha, Titus Barik, Chris Parnin. CSCW 2021.

Conference Paper — *Here we go again: Why Is It Difficult for Developers to Learn Another Programming Language?*
Nischal Shrestha, Colton Botta, Titus Barik, Chris Parnin. ICSE 2020.

Conference Paper — *It's Like Python But: Supporting Transfer of Programming Language Knowledge.*
Nischal Shrestha, Titus Barik, Chris Parnin. VL/HCC 2018.

EXPERIENCE

2018 - Present: Graduate Research Assistant

- Researching data science learning tools
  Advised by Dr. Chris Parnin

2021: Research Intern at Microsoft Research

- Conducted research on how to help Open Source Software (OSS) contributors find relevant and personalized projects that match their skills and interest
- Built a recommendation tool that automatically recommends a personalized, ranked list of OSS projects by using various aspects of a contributor's activity on platforms like GitHub

2020 - 2021: Python/R Intern at RStudio, PBC

- Developed the infrastructure and tooling for the learnr package by adding Python and multi-language support for interactive tutorials
- Coordinated with software engineers to enhance both the learnr and the gradethis package for automated grading for data science
- Lead the development of ggcheck, an automated grader for graphs

2016 - 2017: Android Intern at WillowTree, Inc

- Worked on an Android application for a live video streaming application called Halogen for Halogen Networks, LLC
- Gained experience using the MVVM architecture

2016 - 2017: Graduate Research Assistant (Advisor: Dr. Robert St. Amant)

- Researched human error and cognitive models for prediction
- Extended a cognitive modeling tool called Cogulator to allow for selection rules in GOMS (Goals Operators Methods and Selection Rules) modeling

2016: Android Intern at WillowTree, Inc

- Developed an Android application for AccuWeather
- Implemented a widget from scratch using best Android practices

2015 - 2016: Android/Web Programmer at NC State University

- Optimized a visual recognition game in Android with Drs. Benjamin Watson, Patrick FitzGerald, Christian Holljes, and Masters student, Shaun Kurian

AWARDS AND HONORS

ACM SIGSOFT Distinguished Paper Award:	ICSE 2020
Consortium Award:	VL/HCC 2018
Dean's List:	Spring 2012, Spring & Fall 2014, Spring 2015

PRESENTATIONS

2021:	*Unravel: A Fluent Code Explorer for Data Wrangling*. UIST 2021, Virtual.
2020:	*Here We Go Again: Why Why Is It Difficult for Developers to Learn Another Programming Language?* ICSE 2020, Virtual.
2019:	*Instrument Designs for Validating Cross-Language Behavioral Differences* VL/HCC 2019, Memphis, TN.
2018:	*It's Like Python But: Supporting Transfer of Programming Language* Knowledge. VL/HCC 2018, Lisbon, Portugal.
	Towards Supporting Knowledge Transfer of Programming Languages. Knowledge. Graduate Consortium, VL/HCC 2018, Lisbon, Portugal.

TEACHING

Summer, 2019:	CSC 116: Instructor
Summer, 2018:	REU: Science of Software (Mentor)
Fall, 2017 & Spring, 2018:	CSC 116: Introduction to Computing - Java (Teaching Assistant)
Fall, 2016:	CSC 216: Programming Concepts in Java (Teaching Assistant/Lab Instructor)

REFERENCES

Dr. Christopher Parnin [Ph.D. Advisor]
North Carolina State University
Email: cjparnin@ncsu.edu
Website: http://chrisparnin.me/

Dr. Greg Wilson
Deep Genomics (Formerly at RStudio, PBC)
Website: https://third-bit.com

Dr. Titus Barik
Apple
Website: https://www.barik.net

Dr. Denae Ford Robinson
Microsoft Research
Website: http://denaeford.me