

LARRY JOSHUA CROTTS

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EDUCATION

University of North Carolina Greensboro, College of Arts and Sciences, Greensboro, NC

August 2018 – May 2022

B.S. Computer Science (2021), M.S. Computer Science (2022)

GPA: 3.986/4.0

- Chancellor's List Fall 2018, Spring 2019, Fall 2019, Spring 2020
- Awarded Samanage Success and Mary. D Murray Scholarships for 2019-2020 Academic Year, and Mary D. Murray Scholarship for 2018-2019 Academic Year (UNCG Computer Science Dept.)
- Accepted into Accelerated B.S. to M.S. Computer Science Program
- Accepted into Disciplinary Honors Computer Science Program
- Relevant Coursework:
 - (2018-2019) Advanced Data Structures, Foundations of CS I/II, Computer Organization & Assembly, Elementary Data Structures & Algorithms
 - (2019-2020) Concepts of Programming Languages, Theory of Computation, Software Engineering, Algorithm Analysis & Design, Principles of Computer Architecture, Principles of Database Systems, Artificial Intelligence

Forsyth Technical Community College, Winston-Salem, NC

August 2017 – July 2018

Transfer Degree

GPA: 4.0/4.0

- President's List Fall 2017, Spring/Summer 2018
- Coursework: Introduction to Computer Science (Python), Data Structures & Algorithms (C++)

EXPERIENCE

University of North Carolina Greensboro, Greensboro, NC

Research Assistantship – Software Developer

January 2020 – May 2020

- Worked with Nancy Green (Ph. D) to build an application that recognizes various rhetoric patterns in pieces of literature, political arguments, advertisements using natural language processing with Python and the NLTK (Natural Language Toolkit).

Computer Science Tutor

August 2019 – May 2020

- Aided students in low to mid-level computer science courses with assignments.
- Serve as the TA for an Intro to Computer Science lab section, walking around to any student needing help. I also grade exams and lab programming assessments.

Research Assistantship – Software Developer

May 2019 – August 2019

- Worked with Nancy Green (Ph. D) to rewrite an existing argument [scheme]-structured program into a software engineering ethic-focused diagramming software.
- Argument schemes and articles/cases/ethics using XML files are loaded in by the user, which then allow the user to form premises, hypotheses, conclusions, counterarguments, etc.
- The user-interface was reconfigured and redesigned accounting for previous usability issues and bugs, including MacOS & Linux support, serialization/deserialization, etc.

Age-Wiser/TechStar Tutors, Winston-Salem, NC

March 2018 – October 2018

Information Technology Tutor

- Traveled to various locations to meet with clients to address [their] computing problems, diagnose errors (hardware & software alike), or tutor them in a topic.
- Improved company morale by acting in accordance to respectful and customary ordinances, thereby spreading positive feedback and increasing customer potential and quality.

Walkertown Family Pharmacy, Walkertown, NC

October 2016 – May 2018

Computer & Pharmacy Technician

- Created a Google Sheets and Google Apps Scripts (JS, SQL) medicine query application where customers input a specific drug, quantity, and our competitive prices compared to other pharmacies are displayed.
- Quickly and accurately typed addresses for delivery, constructed simplistic Google Forms and Sheets for invoice reports, formatted documents, and troubleshooted technology at the pharmacy such as scanners, computers, printers, etc.
- Technical diagnoses reduced downtime and boosted profitability margins.

RESEARCH

- **Joshua Crotts**. May 2020. *Binary Space Partitioning – A Focus on Rendering and Compression Algorithms*. Graduate Research Paper for Algorithm Analysis & Design (CSC-654). University of North Carolina at Greensboro (Unpublished).
- **Joshua Crotts** and Dr. Nancy L. Green. April 2020. *Automatic Detection of Rhetorical Devices in Scientific Policy Articles*. Thomas Undergraduate Research Creativity Expo. University of North Carolina at Greensboro.
- Dr. Nancy L. Green and **Joshua Crotts**. August 2019. *Software Engineering Ethics Debater*. University of North Carolina at Greensboro.

TECHNICAL STRENGTHS

Programming Languages:

- Proficient Experience: Java, C++, C, Python
- Additional Experience in: Assembly, C#, Swift, SQL, JavaScript, Google Apps Script, Prolog, Scheme, F#, XML, HTML, CSS

Tools: Visual Studio, Eclipse, NetBeans, IntelliJ, PyCharm, Vim, Microsoft Office, Packet Tracer, Google Suite, XCode, LaTeX

OS: Windows, MacOS, Linux (Ubuntu, Mint, Elementary OS, ArcoLinux, PopOS)

Interests: High-Performance & Parallel Computing, Rendering and Compression Algorithms, Embedded Software Engineering, Computer Architecture, Microprocessor Design, Compiler Design, Quantum Computing, Advanced Algorithm Analysis & Design, Compression, Collision Detection