AUSTIN HALE

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EDUCATION

UNIVERSITY OF NORTH CAROLINA – CHAPEL HILL
Computer Science, B.S.
GPA: 3.79
Expected May 2021

TECHNICAL SKILLS

LANGUAGES
Blueprint • C • C++ • C# • CSS • HTML • Java • JavaScript • JSL • Perl • Python • Rust • TypeScript

COMPUTER GRAPHICS
Azure Kinect • Blender • HoloLens 2 • Leap Motion • Oculus Quest • OpenCV • SPSS • Three.js • Unity Engine • Unreal Engine

DEVELOPMENT TOOLS
Adobe • Bash • Bitbucket • Clang-Tidy • ClearCase • Doxygen • Git • JIRA • Node.js • Perforce • VMware

OPERATING SYSTEMS
Windows • macOS • UNIX • Linux

COURSES

Computer Organization
Data Structures
Discrete Structures
Algorithms & Analysis
Effective Peer Teaching in Computer Science
Foundations of Programming
Models of Languages & Computation
Little Languages
Modern Web Programming (Study Abroad in Copenhagen)
Introduction to Machine Learning
Intro to VR, Game Development and Human-Computer Interaction
2D Computer Graphics
Operating Systems
Digital Logic and Computer Design
Files and Databases

AWARDS

Dean's List (4 Semesters)

LINKS

Personal: austinbhale.com
Github:// austinbhale
LinkedIn:// austinbhale

EXPERIENCE

UNC – Chapel Hill | Undergraduate Research Assistant
May 2020 – Present | *Graphics and Virtual Reality Group*
- Develop an AR educational tool for the UNC School of Medicine using the HoloLens 2.
- Initiate two user studies that evaluate the effectiveness of the teacher continuing to coach the student during student practice for learning sign language and knot tying.

January 2019 – December 2019 | *Enabling Technologies*
- Created software designed to enable people with disabilities to participate in education, literacy, and gameplay. Completed two research projects: Tar Heel Music and Tar Heel Hero.

UNC – Chapel Hill | Undergraduate Teaching Assistant
January 2020 – Present | *Models of Languages and Computation*
- Apply formal language concepts to students through online communication and feedback.

August 2019 – December 2019 | *Effective Peer Teaching in Computer Science*
- Strengthened current and future learning assistants' understanding of topics in computer science pedagogy by creating twenty scenario-based videos.

August 2018 – May 2019 | *Foundations of Programming*
- Reinforced the concepts taught in the Foundations of Programming course to over 450 students through office hours, online questioning boards, and recitations.

SAS | JMP Technical Intern (Year-Round)
June 2019 – Present
- Debug Python, Perl, JSL, and C++ source code for JMP Research & Development that support the Crash Report and Documentation team.
- Manage Jenkins builds to process scripts that generate contrasting screenshots and database scripting in JMP.

Ribbon Communications, Inc. | C20 Engineering Intern
June 2018 – December 2018
- Improved the design and documentation of call server products and solutions.
- Debugged multiple C++ source files for programming errors using Clang-Tidy.

PROJECTS

Analyzing Immersion in a One-vs-One Virtual Reality Game
- Conducted a small study on immersiveness using a steer-to-center redirection algorithm.
- Implemented the Remote Procedure Calls and Steam Multiplayer system.

Tar Heel Music
- Expanded on external machine learning and note sequencing libraries (e.g. Magenta.js) to create an accessible music experience.

Tar Heel Hero
- Developed a 3-D rhythm-based computer game designed to be accessible for all individuals.

Clang-Tidy Visualizer
- Generated a structured view of various bugs in C/C++ source code.

Game Development
- Spearheaded the development of two game's functionality in teams of 5-10 people.

ACTIVITIES & LEADERSHIP

Enabling Technology Club | President
August 2017 – Present
- Contribute to the collection of over 10 million books read on Tar Heel Reader.
- Create accessible games with Tar Heel Gameplay and static websites.

Buckley Public Service Scholars | Enrolled Member
August 2017 – Present
- Demonstrate a strong commitment to public service. Invested 300 hours of service and four skills trainings involving effective communication practices and service abroad.

Hobbies & Other Interests
- Hackathons (HackDuke, HackNC), game jams, 3D animation, web development.