

# Nathan Brown

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## WORK EXPERIENCE

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### Ally Financial

May 2022 – Present

*Software Development Intern*

*Charlotte, NC*

- Responsible for the rewriting of an internal web application from Ember.js to React. This application involved pulling data from various external endpoints and quickly and efficiently representing that data within the application.
- This process also involved a complete visual redesign, heavy performance optimizations, and a strong focus on modularity so that both old and newly created components and features could be used in other applications within the organization.

### Clemson University

January 2021 – June 2022

*Lead Teaching Assistant*

*Clemson, SC*

- Developed a program to interface with Gradescope and enable automatic grading of student code submissions
- Responsible for delivering labs, assisting students with debugging, and the manual grading of various assignments

### Clemson University

April 2021 – June 2022

*Research Assistant*

*Clemson, SC*

- Assisted in the development of a hospital staff training simulation. Specific focus was updating various deprecated components, debugging various issues, and enhancing the overall user experience. Utilized the IBM Text to Speech API.
- Led the development of a mobile Grand Canyon exploration simulation to be used by Clemson Geology students, with a heavy focus on platform cross-compatibility and performance optimization techniques.

## EDUCATION

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### Clemson University

Graduate Spring, 2023

*Bachelor of Science, Major in Computer Science, Minor in Cybersecurity, Senior*

*Clemson, SC*

- Honors, 3.81/4.0 GPA
- Took part in the 2020 HelloWorld and 2021 CUHackit Hackathons
- Was a member of Clemson's Formula SAE Chassis division. Gained experience using Ansys Mechanical, SOLIDWORKS, and Altair HyperWorks. Performed structural and composite optimizations on the Impact Attenuator.

## SKILLS & INTERESTS

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- **Skills:** JavaScript, TypeScript, Java, C/C++, Python, C#, Git, Amazon RDS, Postman, TensorFlow; Strong debugging, data structures, networking, and object-oriented design skills; Very strong leadership and interpersonal skills; Nearly a decade of experience in self-led and self-taught learning, projects, and personal improvement in software development.
- **Interests:** Programming; Skiing; Running; Art; Game Development; Hiking; Camping

## PROJECTS

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- **Hydrogen:** An investment application based on historical quantitative analysis of closing stock prices. Main focus is on optimizing one's personal portfolio, and backtesting optimization strategies using data obtained from Yahoo Finance.
- **Kano:** An interpreter for the CHIP-8 computer system utilizing C++ and SDL2.
- **MarketBot:** Developed during Clemson's 2020 HelloWorld Hackathon. Utilizes Python and Discord's API to function as a service that users can use to find and list items for sale.
- **DriveMan:** Python program that allows for Google Drive file management via the command line. Supports uploading, downloading, copying, and moving files, in addition to managing multiple Google accounts.

## AWARDS/HONORS

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- Eagle Scout
- 2<sup>nd</sup> place in 2019 NCCTM State Fair for "Deriving the Perimeter of Horizontally and Vertically Stretched Regular Shapes"
- Clemson National Scholar Finalist