

JULIAN RACHELE

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EDUCATION

University of South Carolina

M.S Computer Science

Columbia, SC
Aug 20 - Aug 21 (Ongoing)

University of South Carolina - Honors College

B.S Computer Science *GPA: 3.93*

Columbia, SC
Aug 16 - May 20

EXPERIENCE

REDCRAFT | Department of Engineering and Computing

Research Assistant under Dr. Homayoun Valafar

Columbia, SC
Nov 18 | Present

- Optimized legacy codebase to C++11 and developed GUI in Qt5.
- Made individual improvements to the engine including writing parallelized matrix multiplication algorithm.
- Implemented CI/CD pipeline and wrote unit tests using Googletest.

Astérion VR

Software Engineering Intern

Rennes, France
Jun 19 | Jul 19

- Implemented the Goal Oriented Action Programming (GOAP) AI model to direct terrorist and hostage AI for French counterterrorist operatives during virtual training sessions.
- Wrote the GOAP implementation as a C++ plugin for the Unreal Engine.
- Wrote tests and integrated the plugin using Unreal's blueprint system.

Department of Mathematics

Research Assistant under Dr. Paula Vasquez

Columbia, SC
May 18 | Nov 18

- Created data visualization platform in Python using Pandas and Plotly.
- Planned and built custom Linux machine for data processing.

Donate Life South Carolina

Volunteer

Greenville, SC
Aug 10 | Present

- Designed posters, flyers, and banners promoting organ and tissue donation.

SKILLS

Proficient C/C++, Python, Dart/Flutter

I have many years of educational experience in these languages and/or have leveraged these skills in either a professional or research setting.

Competent SQL, Haskell, Java, HTML/Javascript

I have used these languages for personal projects, and I am confident with them.

French Fluent C1

I have been studying French for eight years and I use it regularly. It is a passion of mine and I have full professional fluency.

PROJECTS

Capirca github.com/google/capirca

Contributed various bug fixes to Google's open source network ACL generator.

Protobowl Mobile Dart, Flutter

A mobile application that uses web sockets to create a real-time multiplayer trivia application. The mobile app interfaces with the publicly exposed web sockets at Protobowl.com and uses Redux for state management.

AWARDS & ACCOLADES

Phi Beta Kappa

Member of the oldest academic honor society in the United States.

Mar 2020

Best Project

Recognized by both students and faculty of the French department for my project Zone Rouge, a web application documenting France's sacrificed villages in WWI.

Apr 2019

French Club President

Served as French Club Vice President for a year and President for 3 years.

Nov 2016 | Present