Guilherme Alves
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OVERVIEW
Junior at the Colorado School of Mines. I love Computer Science, and tinkering with computers or electronics in any way I can. My major is Computer Science with a specialty in Robotics and Intelligent Systems. I have also had experience and training both with programming, as well as Desktop IT and Networking.

EDUCATION
Colorado School of Mines, Golden, Colorado
BS Computer Science with a Specialty in Robotics and intelligent systems
Expected Graduation: December, 2020   Current GPA: 3.58/4.00

STEM School and Academy (Now STEM School Highlands Ranch), Highlands Ranch, Colorado
High School Diploma, with Scholar and Honors Distinctions
May, 2017   GPA: 3.74/4.00

PROJECTS
MinesCoursesDB, School Project   Fall 2018
Mines Courses DB was the final project for Web Development. For this project, each group was allowed to build a project that incorporated all the aspects of the class, including Front-end components (**HTML, CSS, JavaScript, jQuery**), as well as a database, and some Back-end components (**MySQL, PHP**). We chose to build a website that mimicked IMDB and *ratemyprofessor.com* but aimed at rating classes in each department by student vote.
I mainly worked on the Back-end of the website, designing the queries to be used as well as some of the PHP used to generate pages. Furthermore, I also worked on the account creation and password reset system.

Robot Planning and Manipulation Final Project, School Project   Spring 2019
The final project for the class Robot Planning and Manipulation was focused on helping graduate students to further their research by using the techniques and methods learned about in class. In our case, we worked on Richard Pratt's research, which revolved around using Magnetically-guided needles to insert probes or medicine directly into the brain in a manner that is less invasive than current methods.
In order to do complete the project, a model of the control system of the needle was used, along with **OMPL**'s control-based planning approach. This approach allowed us to specify a working space for the needle, and then iteratively the program would set three different coils to a relative strength, allowing the needle to turn over time. The approach used allowed the needle to reach specified target locations within a reasonable tolerance.

EXPERIENCE
Intern at STEM School Highlands Ranch   **May - July 2017**
Helping school administration to transfer website content from an old website to the current website.

TECHNICAL SKILLS
Languages I am Most Comfortable with: C++, Java
Languages I am Familiar with: Python, Javascript, HTML, CSS, PHP, SQL, Lisp, Assembly
Frameworks I have used before: jQuery, OpenProcessing, the Arduino Environment
General Knowledge Topics: Data Structures, Object Oriented Programming, Networking, Desktop IT

CERTIFICATION
- **Testout Network Pro**
Verify at: *verification.testout.com*, Certificate ID: C28PE

- **Testout PC Pro**
Verify at: *verification.testout.com*, Certificate ID: CVWAL

- **SOLIDWORKS Mechanical Design Associate**
Verify at: *solidworks.virtualtester.com*, CertificateID: C-T6G4C63KP3

RELEVANT COURSES
- Data Structures • Software Engineering • Computer Organization
- Database Management • Web Programming
- Building a Sensor System in Python • Introduction to the Linux Operating System

• Discrete Mathematics • Robot Planning and Manipulation • Algorithms (Fall 2019)
• Introduction to Machine Learning (Fall 2019) • Operating Systems (Fall 2019)

ABOUT ME Other than my love for Computer Science, I love being outdoors, working closely with others to solve problems, trying to push myself to always learn, as well as constantly improving and inspiring myself and my work. During Middle and High School, I was also involved in the Technology Student Association (TSA), as well as the CyberPatriot competition.

I am 19 years old. Other than English, I also speak Portuguese fluently.