

Juan M. Penaranda

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EDUCATION	<i>Bachelor of Science and Arts, Computer Science</i> University of Texas at Austin GPA: 3.92	August 2014 - May 2018
SKILLS	<i>Programming Languages:</i> Python, C, C++, Java, Swift.	
EXPERIENCE	<i>UT Association for Computing Machinery - Tutor</i> Offered help to Computer Science students enrolled in Introduction to Programming, Data Structures, and Computer Architecture and Organization.	Spring 2016 - Fall 2016
	<i>Raab Graham Laboratory - Undergraduate Research Assistant</i> Participated in the prediction of cell activity and mRNA structuring by implementing algorithms that simulated possible alignments of mRNA sequences using statistical data.	Fall 2015
PERSONAL PROJECTS	<i>Distributed Memory Allocator</i> Implemented simple memory allocator that served requests across multiple nodes. Dealt with distributed computing problems such as load-balancing, availability, and consistency.	Summer 2017
	<i>Experimental Mutex</i> Created synchronization API using C++ and inline assembly atomic operations.	Spring 2017
	<i>FlexSC Analysis</i> Wrote experimental code to simulate the effectiveness of proposed flexible exception-less system calls, in contrast to regular ones. Temporal/spacial locality and utilization of multicore processors were the main elements compared and analyzed.	Summer 2016
	<i>iOS Minesweeper</i> Used Swift and Xcode to recreate the popular and classic Minesweeper game.	Summer 2016
	<i>PintOS</i> Implemented synchronization constructs, system calls, virtual memory, and a file system for this instructional operating system.	Spring 2016
	<i>Random Writer</i> Created a random text generator that utilizes Markov Chains. The Python script takes a text file as input and trains itself through the probabilistic model to generate output that is similar to the text.	Fall 2015
EXTRA-CURRICULAR ACTIVITIES	<i>Code Orange</i> Mentor for voluntary organization that teaches young, underserved children how to code.	Fall 2016 - Spring 2017
	<i>ACM Programming Competitions</i> Participation in bi-weekly contests.	Spring 2015 - Present
	<i>World Robot Olympiad</i> Third place nationally, Bolivia.	Summer 2012
INTERESTS	Systems programming, infrastructure, algorithms, competitive programming, literature, philosophy, soccer.	
RELEVANT COURSEWORK	Data Structures, Computer Architecture and Organization, Python, Principles of Computer Systems, Object-Oriented Programming, Algorithms and Complexity, Compilers, Software Engineering, Programming for Correctness and Performance.	