## **Ashley D'Souza**

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Education — Rice University	2017 - present
BS Computer Science, graduating May 2021, GPA: 3.41	Houston, TX
Work Experience	
<ul> <li>OpenStax Backend Development Intern - Biglearn team</li> <li>Created scalable application with testing &amp; deployment automation to handle/record request info (RoR)</li> <li>Developed regular &amp; serverless Postgresql database setups for use in Biglearn (AWS, AWS Aurora)</li> <li>Worked in team of 8 interns to build &amp; pitch note-taking app integrated with OpenStax (Google API, Django)</li> </ul>	Summer 2019 Houston, TX
<ul> <li>Rice University, Dept. of Computer Science Teaching Assistant</li> <li>TA for Reasoning about Algorithms: lead office hours and discussion of labs, grade homeworks</li> </ul>	Fall 2019 Houston, TX
Awards	
Rewriting the Code Fellow more  • US/Canada-wide competitive award for females in CS: coaching, networking educational programming	2019 - present US/Canada
<ul> <li>PyoFuel: Using Python and Pathway Tools to engineer synthetic biofuel Sole Author more</li> <li>Int'l. Soc. for Computational Biology / 2016 Rocky Mountain Bioinformatics Conference (poster session)</li> </ul>	Dec 2016 Colorado
Software Development Skills ———————————————————————————————————	
<ul> <li>Programming Languages &amp; Frameworks</li> <li>Proficient: Python, Java, C, Ruby, RoR, Git, Linux, AWS, ReasonML/OCaml, React</li> <li>Basic: Elm, Racket, Pyret, Html, Hasura's Postgres + GraphQL</li> </ul>	2013 - present
<ul> <li>Software Design and Testing</li> <li>Typed functional programming, object-oriented design, databases and distributed systems</li> <li>Test-driven development, unit &amp; property-based tests, Pytest, JUnit 5 &amp; QuickTheories, RSpec</li> </ul>	2013 - present
Projects —	
<ul> <li>Lentil - A Web-Based Musician's Feedback Service Independent Project repo demo</li> <li>Develop full-stack application for use by musicians and teachers (ReasonML, React, Postgres)</li> <li>Musicians submit recordings and receive feedback on specific points in recording</li> </ul>	2018 - present
Physics Sunset Independent Project repo demo	2017
• Designed and implemented browser-based interactive graphical simulation of physics problem (ReasonML)	
<ul> <li>Hidden Markov Models and Part-of-Speech Tagging (NLP)</li> <li>Implemented statistical learning of HMM using training corpus of pre-tagged sentences (Python)</li> <li>Used Viterbi algorithm to assign part-of-speech tags to new sentences using trained HMM</li> </ul>	2018
Disease Transmission Analysis from Outbreak Data	2018
• Inferred disease transmission tree from disease outbreak genetic/epidemiological data using RDMST (Pythor	
<ul> <li>Phylogenetic (Evolutionary) Trees</li> <li>Inferred evolutionary tree given DNA sequences for leaf taxa and plausible mutations (Python)</li> </ul>	2018
Organizations and Activities	
CSters: Women in Computer Science, Rice University	2017 - present
CS Club, Rice University	2017 - present
<ul> <li>Society of Women Engineers (SWE), Rice University</li> </ul>	2017 - present
Club Tennis, Rice University	2017 - present