## **Ashley D'Souza**

■ akd6@rice.edu ■ 512-228-4140 ■ <u>Home</u> ■ <u>Blog</u> ■ <u>Github</u> ■ <u>LinkedIn</u>

Education **Rice University** 2017 - present Houston, TX • BS Computer Science, graduating May 2021, GPA: 3.58 **Work Experience** HubSpot Summer 2020 Software Engineering Intern Remote In progress OpenStax Backend Development Intern - Biglearn/Tutor team Summer 2019 Houston, TX • Built Rails application with automated testing for two Biglearn endpoints (4,000 students/semester) Transitioned Biglearn to Aurora Serverless for scalability with load-testing & autoscaling (AWS, AWS Aurora) Worked in team of 8 interns to build & pitch note-taking app integrated with OpenStax (Google API, Django) Rice University, Dept. of Computer Science Teaching Assistant Fall 2019 Houston, TX · TA for Reasoning about Algorithms: lead office hours and discussion of labs, homeworks, and exams **Software Development Skills Programming Languages & Frameworks** • Proficient: Python, Java, C, SQL, Ruby on Rails, Git, Linux, AWS Basic: Elm, JavaScript, HTML, React, ReasonML/OCaml, Hasura's Postgres + GraphQL **Software Design and Testing** · Databases and distributed systems, functional programming, object-oriented design Test-driven development, property-based tests, Pytest, JUnit 5 & QuickTheories, RSpec **Projects** Lentil - A Web-Based Musician's Feedback Service **Independent Project** 2018 - present Develop full-stack application for use by musicians and teachers (ReasonML, React, Postgres) · Musicians submit recordings and receive feedback on specific points in recording **Physics Sunset** 2017 *Independent Project* <u>repo</u> <u>demo</u> Designed and implemented browser-based interactive graphical simulation of physics problem (ReasonML) Hidden Markov Models and Part-of-Speech Tagging (NLP) 2018 Implemented statistical learning of HMM using training corpus of pre-tagged sentences (Python) Used Viterbi algorithm to assign part-of-speech tags to new sentences using trained HMM **Disease Transmission Analysis from Outbreak Data** 2018 • Inferred disease transmission tree from disease outbreak genetic/epidemiological data using RDMST (Python) **Awards Rewriting the Code** 2019 - present US/Canada US/Canada-wide competitive award for females in CS: coaching, networking educational programming PyoFuel: Using Python and Pathway Tools to engineer synthetic biofuel Sole Author more Dec 2016 Colorado • Accepted for 2016 Rocky Mountain Bioinformatics Conference (poster session) **Leadership and Activities**  Public Relations Director and member of Club Tennis, Rice University 2017 - present • CSters: Women in Computer Science, Rice University 2017 - present CS Club, Rice University 2017 - present · Society of Women Engineers (SWE), Rice University 2017 - present • Music: sing, record, perform, take lessons 2007 - present soundcloud voutube