

# Ashley D'Souza

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■ [Home](#) ■ [Blog](#) ■ [Github](#) ■ [LinkedIn](#)

## Education

### Rice University

Aug 2017 - May 2021  
Houston, TX

- BS Computer Science, GPA: 3.6/4.0

## Work Experience

### HubSpot *Software Engineering Intern - Growth Monetization Backend*

Summer 2020  
Remote

- Full ownership of revenue generation project for startup market involving multiple teams
- Develop Java application for cross-platform integration of business development managers & startups
- Design & deploy internal API's and clients with unit & acceptance testing for use by other teams
- Maintain databases by building data access objects & automated jobs using SQL and Java

### OpenStax *Backend Development Intern - Biglearn/Tutor*

Summer 2019  
Houston, TX

- Built Rails application with automated testing for Biglearn endpoints, impacting 4,000 students/semester
- Transitioned Biglearn to AWS Aurora Serverless for scalability with load-testing & autoscaling
- Worked in intern team to build & pitch note-taking app to investors

### Rice University, Dept. of Computer Science *Teaching Assistant*

Fall 2019  
Houston, TX

- TA for Algorithms II: lead office hours and discussion of labs, homework, 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

## Projects

### Lentil - A Web-Based Musician's Feedback Service *Independent Project* [repo](#) [demo](#)

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 *Independent Project* [repo](#) [demo](#)

2017

- 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 *Fellow* [more](#)

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 [soundcloud](#) [youtube](#) 2007 - present