HEATHER D'SOUZA

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SUMMARY OF QUALIFICATIONS

- **Languages:** Swift, Objective-C, Java, Python
- **Tools:** Xcode, UIKit, CocoaPods, Git, Bitbucket, Postman, Charles, Realm, Firebase, Jira, Confluence, Figma
- Strong understanding of data structures and algorithms, OOP, and SDLC
- Software development experience in mobile app development, image processing, and web

WORK EXPERIENCE

iOS Software Engineer, Splunk, May 2019 - August 2019 *San Francisco*

- Built a security operations app that automates repetitive tasks with **Swift** and **VIPER** architecture
- Implemented a UI-rendering feature that uses the factory design pattern, **Codable**, and dynamic data to create and populate card components, dynamic forms, and action buttons at runtime
- Reduced response payloads by **83%** and minimized the number of API requests made to the server
- Created view and control UI components for an internal library similar to **SwiftUI**

Agile iOS Software Engineer, TribalScale, September 2018 - December 2018 *Toronto*

- Developed an iOS radio app with **800,000** monthly users in **Swift** for playing stations and podcasts
- Added functionality to a media playback SDK in **Objective-C** to include a buffer to pause live stations, **AVQueuePlayer** to cache songs, and view controller logic for displaying interstitial ads
- Created modules to display released, subscribed, and downloaded podcasts stored in **Realm**
- Employed **XP** methodologies through paired programming, **TDD**, and architecture reviews

Bioinformatics Programmer, Ontario Institute for Cancer Research, January 2018 - April 2018 *Toronto*

- Created XenoClassify, an open-source command-line tool, in **Python** that classifies sequencing data from large xenograft samples (100 GB+) with **96%** accuracy
- Integrated the tool into a data processing workflow using **Java** and performed integration tests with **Jenkins** to streamline job submissions on OICR's high performance cluster
- Scripted in **Python**, **Perl**, and **Bash** to process and analyze sequencing data

Software Developer, SickKids, May 2017 - August 2017 *Toronto*

- Developed cell tracking software in **Matlab** that uses image processing to detect mitosis and measures changes in eccentricity, nuclear area, and orientation

PROJECTS

PharmaFriend, Azure, APIs, Hack the North 2017

- Developed a chat-bot android app that prevents users from purchasing medication detrimental to their drug plan and health
- Accessed drug data from **REST APIs** to assess the risks of the medication
- Developed a language-understanding model using **Microsoft Azure** to train the chat-bot to recognize and respond to various social cues

Twitalytics, Python, ReactJS, Hack Western 2018

- Created a web app that extracts tweets from the **Twitter Search API**, performs sentiment analysis, and visualizes the public opinion of any given search query
- Developed an NLP algorithm using **NLTK** that clusters and prioritizes popular tweets
- Composed graphs of the data using **ReactVis**
- Won "Best Use of Entity Extraction" category

EDUCATION AND ACHIEVEMENTS

- Candidate for Bachelor of Applied Science, Biomedical Engineering, University of Waterloo, 2021
- President's Scholarship of Distinction ($2000), University of Waterloo, 2016
- Publication: Ginzberg M.B., Chang N., **D'Souza H.**, Kirschner M.W., Kafri R., "Cell size sensing in animal cells coordinates anabolic growth rates and cell cycle progression to maintain cell size uniformity", *eLife,* 2018