

# Jacob Tran

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## Work Experience

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### Big Compass | Software Consultant

Jun 2019 – Present

Disney – Contractor (Webmethods (Java-based), Snowflake DB, AWS)

Jul 2019 – Present

- ETL engineer - Streamlined CSV, Excel and other non-standardized payment processor data files to Snowflake database. Responsible for standardizing 6 unique payment processor's data into one conformed database for future business use.

## Certifications

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- AWS – Certified Solutions Architect (Associate)

Aug 2019

## Projects

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### ProseAlign

Oct 2019 – Present

Global word-level sequence alignment

Python

- Aligns Vietnamese translation of Harry Potter with a Google speech-to-text transcription of its corresponding Audiobook. Will be useful for future language learning tools.
- Currently char-level sequence alignment (Needleman-Wunsch) is too slow for larger text. By using word-level you can find the word in which the sequence broke and then run char-level alignment to find the broken segment.

### Universal Custom Video Playback Speed

Oct 2019 – Dec 2019

Personal problem / project

JavaScript

- Currently developing a Google Chrome extension to allow for custom video speed (i.e. 0.49x, 1.33x speed) on most HTML based video players. To be released in the Chrome store – currently runs locally.

### Visual Tracking Analysis | Data Lead

Sep 2018 – May 2019

Senior Project for Northrop Grumman

Python, PyTorch, Keras, Tensorflow, OpenCV

- Analyzed various deep learning models to identify and detect moving objects in videos. Compared the accuracy and efficiency of modern models and gave recommendations on recurrent neural networks for object identification and detection.
- Improved performance of vehicle detection to 93% accuracy compared to last year's team at 84%.

### “PlayerKnown's Battlegrounds”

Jan 2018 – May 2018

Project for Data Mining Course

Python, Jupyter Notebook, scikit-learn

- Mined data from the popular video game, PlayerUnknown's Battlegrounds. Designed an in-depth survival guide pertaining to giving players the best tactics for surviving longer, managing weapons and planning path of travel.
- “Big Data” where information from over one million data points were mined.

## Technical Skills

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**Languages** Python • C++ • Java • JavaScript • SQL • HTML/CSS

**Software Tools** GitHub/Git • AWS • WebMethods • Travis CI • Tableau • Snowflake DB • Splunk

## Education

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### University of Colorado Boulder

Aug 2015 – May 2019

- Bachelor of Science, Computer Science
- Major GPA: 3.6 - Cumulative GPA: 3.2