

# TUAN TRAN

SOFTWARE ENGINEER

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## Work Experience

### SEA GROUP, SOFTWARE ENGINEER - BACKEND

Ho Chi Minh, Dec. 2018 - Now

- Working on back-end team of Now, one of the largest food delivery platforms in Vietnam with 1 million daily users.
- Developed customer relationship management platform for business development team using **Python** and **Django**.
- Built a search engine based on **ElasticSearch**, resulting in saving **90%** query time and reducing **5%** bandwidth usage of the database, helping sync an enormous data from the database (**200.000 records**) every day.
- Developed a chart builder for data visualization, speeded it up by building a cronjob to **generate cache automatically**.

### BIOTURING, RESEARCHER AND DEVELOPER

Ho Chi Minh, Jun. 2017 - Nov. 2018

- Worked in the bioinformatics field using computer science and biological knowledge.
- Researched and implemented command-line tools for processing DNA and RNA data using **C**. **Promoted** to the research team's tech lead.
- Developed Bioturing Browser, an application for analyzing and visualization of RNA and single-cell sequencing data using **Javascript**, **Nodejs**, and **Electron**.

### BIO-O CODING, TEACHING ASSISTANT

Ho Chi Minh, Jan. 2017 - May. 2017

- **Prepared lessons** and **online taught** Vietnamese and international students: Introduction to Algorithms, Advanced Algorithms and Data Structures.

## Project

### CALLING VARIANT

2018

- Developed a command-line tool for calling variant from DNA-sequencing data using **C**.
- Used **Burrow-Wheeler Aligner** for short-read alignment and **Bayesian model** for detecting mutations.
- This tool was **three times faster** than GATK (the state-of-the-art tool of this field) at that time.

### MDUP

2018

- Developed a command-line tool for preprocessing linked-reads DNA-sequencing data.
- Used **hash algorithm**, **dynamic allocation memory**, and **multi-threading** to save memory and speed up. This tool reduced the waiting time by **80%** compared to other applications.

## Education

### Ho Chi Minh City University Of Science

Ho Chi Minh, Vietnam

B.S. IN COMPUTER SCIENCE, HONOR PROGRAM

Sep. 2014 - Sep. 2018

- Got a scholarship for top high-achieving students in 2017.

## Honors & Awards

- **Candidate Master** in Codeforces (codeforces.com/profile/indecchi).
- **Top 500** in HackerRank (hackerrank.com/tuantt).
- **First Prize** in Company (Sea) Hackathon. 2019
- **Top 300** in Snack Down (Codechef contest). 2017
- **Honor Prize** in Samsung Collegiate Programming Cup. 2017
- **Most Valuable Player** in CodeWar (coding and capture the flag contest) 2017
- **Rank 30** in ACM – ICPC Asia Regional Contest 2017
- **Second Prize** in ACM – ICPC Vietnam National Contest 2017
- **Second Prize** in the Vietnam Olympiad of Informatics for High-school Student Individual Contest 2014

## Skill

- **C/C++ (5 years)**, **Python (3 years)**, Javascript (1 year), MySQL, Django, ElasticSearch, NodeJs, Git, Bash, Linux,...