

# VINH NGUYEN

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## EXPERIENCE

### Teaching Assistant

#### Carleton University

September 2019 - Present

Ottawa, Canada

- Assisted students with coding questions, **teaching** by using examples and diagrams, **ensuring understanding** of programming principles and concepts
- Evaluated and marked midterm exams **quickly and accurately** to ensure correct grades are delivered to students in a **timely manner**
- Created a **diverse set of programming problems** for students to learn from, as well as questions which were used within final exams

## PROJECTS

### 1InTheSocket

github.com/cuhacks2020/1inthesocket

January 2020

CUHacking 2020

- A multiplayer web game built in **JavaScript**, utilizing the **P5.js framework** to render graphics, including the map, players, enemies, and bullets
- Implemented **Socket.IO** to facilitate networking between players, using **predictive algorithms** for movement, accounting for lag over slow networks
- Designed a grid-to-window conversion algorithm so experience would not differ based on platform, allowing **fair cross-platform play**

### Abyss Runner

github.com/vinhvn/abyssrunner

December 2018

- An arcade-style dungeon crawler game written in **Java** and **Processing**
- Developed over a period of 72 hours as team of two in order to learn more about **indie game development** and experiences in a Game Jam
- Used **object-oriented software design** such as polymorphism, inheritance, and encapsulation in order to organize and simplify complex interactions
- Designed an overlying game engine, using states and the Minim library to implement various different screens, levels, and menus, all with sound

### Vivi: A Discord Bot

github.com/vinhvn/vivi

September 2019 - Present

- Built in **JavaScript**, implementing the **discord.js API** to integrate **Node.js** with Discord, a free online chat messaging application
- Utilized **asynchronous function design** to manage large amounts of user requests, returning responses in a quick and timely manner
- Implemented web principles such as **minimal traffic and stateless design**, decreasing processing required for each request and increasing efficiency

## INTERESTS

Web Development

App Development

Backend

Algorithms

## EDUCATION

### Bachelor of Computer Science

#### Carleton University

September 2018 - May 2022

- Concentration in **Software Engineering**
- Minor in **Japanese**
- Dean's List
- Recipient of Goldie Wilkinson Award
- CGPA 11.81/12.0 (A+)**

## SKILLS

### Languages

Python

JavaScript

C

C++

Java

HTML

CSS

Lua

PHP

### Technologies

Node.js

Express.js

Git

Linux

MongoDB

Pug.js

Socket.IO

SQL

Processing

React.js

React Native

### Knowledge & Concepts

Data Structures

Object-Oriented Design

Web Development

Version Control

## COMMUNITY

### Gamehead for TESPA Carleton

Coordinated and ran tryouts with students to find the **most effective and excellent players** to represent the Carleton Ravens

### Moderator of CCS

Co-founder and moderator of Carleton Computer Science, a large community of over **900+ Computer Science** students

### Co-Founder of Coding Club

Created, attended, and conducted various **introductory programming workshops** in high school during after school hours