ZI GAO

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▶ Skills

WEB DEVELOPMENT

React.JS
Node.JS + Express.JS
HTML/CSS
Firebase
Flask
MongoDB
JavaScript (ES6)

APP DEVELOPMENT

Java
Python
Processing
Android Studio
TensorFlow

ADDITIONAL SKILLS

Git VC
Object Oriented Programming
Data Structures and Algorithms
Bash Scripting
Linux
C & C++

▶ Education

University of Ottawa
Bachelor of Software Engineering Expected 2022

Coursera - Stanford University
Specialisation in Algorithms

Coursera - University of Michigan
Web Development

Coursera - Stanford University
Introduction to Machine Learning

▶ Employment

Wind River Systems (formerly Intel Corp) · Ottawa, ON
Software Intern · May 2018 to Current

- Currently working on a neural network model using TensorFlow to dynamically detect, analyse, and diagnose test case failures (personal initiative)
- Created automation test code for scheduled and regression testing in C and Python
- Designed and programmed a priority queue target reservation system, significantly reducing wait times and request collisions
- Implemented symmetric multi-processing code for VxWorks GuestOSes
- Ported all dev and test environments to Docker and Vagrant, and developed bash setup scripts, eliminating environment issues and reducing setup time by 90%.
- Trained new COOPs on core product infrastructure and test plans
- Practiced software development and testing using Agile methodology

Freelance · Ottawa ON
Full-Stack Web Developer · June 2017 to Current

- Designed UI and UX, created mockups, and wireframes
- Programmed website front ends using React, jQuery, HTML and CSS, Bootstrap
- Developed back end code using Node + Express, and Flask
- Stored and queried data using MongoDB and Firebase realtime DB
- Configured online server hosting services and domain names

▶ Projects

LynqUp : Social Media Side Project - Python, Java, React.JS ·

- Developed back end friend graphs and user account infrastructure
- Implemented a friend and event recommendation algorithm using Java
- Designed a calendar merge function to find available time slots for multiple users in Python
- Created dynamic front end views using React.JS

ParkMe - AWS, Google Maps API, Node.JS

- Implemented AWS Rekognition API to parse important text (e.g. date and time, parking duration) from parking sign pictures taken by users
- Validated user input and stored information as nodes in Firebase DB
- Loaded available parking locations on Google Maps using Maps API
- Led team to successful project completion in under 24 hours at uOttaHack

Schedulus - Node.JS, Express, Firebase, Cisco Spark API

- Created Cisco Spark chat bot that posts, configures, and updates schedules
- Configured Express server and set up Firebase DBfor storing scheduling data
- Programmed parsing functions in Node.JS to return formatted schedules

Virtual Fighterz (Street Fighters on Kinect) - Processing, Java ·

- Created a virtual fighting game where the camera picks up the player's joints via image processing and tracks them
- Implemented a two player fighting mode connected via network
- Designed a custom and efficient unit collision detection algorithm

More Projects can be Found at ZiGao.io and on my Github

▶ Awards

The Governor General of Canada · Governor General of Canada Academic Medalist 97 Average Gr.11, 98 Average Gr. 12		2017
University of Waterloo · Canadian Computing Competition Certificate of Distinction		2017
Schulich Foundation · Schulich Leader Nominee		2017
University of Ottawa · Chancellor's Scholarship Finalist		2017
University of Waterloo · Waterloo Mathematics Contest Certificate of Distinction		