Evon Dong Bing Bing

(+65) 9856 0482 • e0322896@u.nus.edu • https://github.com/EvonDong

EDUCATION

National University of Singapore **Aug 2018 - Present**

Bachelor of Computing (Honours) in Computer Science

- Expected Date of Graduation: December 2021
- Relevant coursework: Programming Methodology, Data Structure & Algorithms, Software Engineering, Computer Networks, Information & Computer Security, Operating Systems, Artificial Intelligence, Software Engineering Principles & Pattern

Student Exchange Programme in Shanghai **May 2014 – June 2014**
(Nanyang-Chung Cheng Collaboration at Fudan)

- Selected to represent the school and took on a BreadTalk project to develop entrepreneurial skills
- Gained insights into Chinese culture through networking with student leaders and immersion in Chinese Wushu
- Volunteered at Sunshine Home (China) to interact with the intellectually disabled
- Honed interpersonal and project management skills through organizing events

WORK AND INTERNSHIP EXPERIENCES

Singtel (NCS Pte Ltd & TrustWave) **May 2020 – August 2020**

Software Developer Intern for Post Quantum Security & AI

- Built a post-quantum module by classifying and collating all the NIST Post-quantum Digital Signature Algorithm candidates into a C++ library in Linux environment
- Designed and implemented an Inter-Process Communication interface to integrate post quantum key exchange module with OpenVPN using knowledge of OS shared memory and principles of SSL/TLS
- Programmed in C/C++ for application of cryptographic primitives
- Constructed quantum safe OpenVPN for transmission between robot server and clients and analyzed the difference in performance using a multitude of networking tools
- Researched on implementation of OpenVPN architecture, virtual networking and static analysis tools

Institute for Infocomm Research, A*STAR (Singapore) **May 2019 – August 2019**

Software Engineering Intern

- Utilized Robotics Operating System (ROS) to advance and achieve robust autonomous vehicles (AV) perception
- Improved and deployed automation process for testing and analysis using C++
- Explored various Light Detection and Ranging (LIDAR) sensors involved
- Researched numerous robots and their operating system
- Did independent learning about data analysis using Matplotlib and Pandas library on Python
- Explored different deep learning CNN models for image recognition and image classification

PROJECTS

Static Analyzer Program **August 2020 – November 2020**

C++, C, Python, CMake

- Built a static analyzer which analyzes a program made in SIMPLE, extracts relevant information into a program knowledge base
- Built a program consisting of query processor which evaluates and retrieve appropriate results based on various queries
- Immersed in full Agile SDLC lifecycle with multiple iterations to incorporate new features and bug fixes
- Planned and designed the architecture of a large-scaled software system to minimize query evaluation time
- Developed extensive tests with high coverage to consider all possible cases

Link: https://github.com/EvonDong/static-analyzer-program

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Nerdspace **August 2020 – November 2020**

React, Firebase Realtime Database, Redux, Node JS, Express

- Built a specialized buddy finder application that match students based on their educational background and relevant interests
- Designed and implemented virtual study rooms for students to share notes and meeting agendas
- Utilized Firebase Realtime Database to develop messaging features and chat rooms
- Constructed detailed data visualization elements for users to find common free time with their buddies

Link: https://github.com/EvonDong/Nerdspace-web-app

Paradise E-commerce Website **June 2020 – August 2020**

Django, SQLite, HTML, CSS, Bootstrap, Python

- Created a stylish, sophisticated e-commerce website using Django MVT (Model, View, Template) pattern
- Enriched the user interface with interactive features such as slidable side navbar and pop-up notifications to provide a seamless, smooth user experience
- Embellished relevant products with conspicuous colored labels to prompt a sense of urgency for purchase
- Enforced robust security with authentication features

Link: https://github.com/EvonDong/Shoppertize-Ecommerce

ExcerTracker **June 2020 – August 2020**

MERN (MongoDB, Express, React, Node.js) stack, Javascript

- Developed a functional fitness tracking website to inspire users to exercise
- Designed a countdown page with a clock ticking down in real-time to spur users towards their exercise goals
- Implemented logging and registration system for new and existing users
- Augmented the recommendation page with details and splendid landscape images for inspiration

Link: https://github.com/EvonDong/ExcerTracker-MERN

TreasurerPro **August 2019 – December 2019**

Java, JavaFX, Junit, Travis

- Developed a desktop application for organizations to regulate their expenses and display detailed analysis of their revenue
- Enhanced test coverage to more than 90% (for individual package) using Junit
- Designed the layout of the application using JavaFX
- Developed Activity diagrams, Sequence diagrams and Use Case diagrams using tools for UML
- Utilized Gradle scripts for building and deploying the application

Link: https://ay1920s1-cs2103t-t13-3.github.io/main/

COMPETITIONS

Angel Hack 2019 **July 2019**

Singapore Stock Investment

Ruby on Rails, HTML, CSS, PostgreSQL

- Developed a website that screens stocks listed on Singapore Exchange based on investing systems as part of Angel Hack 2019
- Designed display of the webpage using HTML and CSS
- Explored various web harvesting tools including BeautifulSoup
- Retrieved and manipulated data in databases using PostgreSQL
- Implemented UI using MVC to create responsive webpages

Defence Science and Technology (DSTA) Brainhack Challenge 2019 **June 2019**

Image Classification

Python, Central Neutral Network (CNN), Keras, TensorFlow

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- Worked on AWS to develop pipeline and train the model to classify a dataset of images using Keras, TensorFlow library
- Researched on ways to prevent overfitting and reduce noise in images
- Explored various learning models to refine existing model for higher accuracy

Shopee Code League 2020 **June 2020 – July 2020**

Data analytics

Python, Neutral Network, Keras, TensorFlow, Natural Language Toolkit (NLTK)

- Researched on data visualization and various machine learning models
- Worked on training a neural network model for product identification using object detection algorithms and image pre-processing frameworks to reduce noise
- Experimented with natural language processing including text mining and sentiment analysis using NLTK

Defence Science and Technology (DSTA) Brainhack Challenge 2020 **June 2020 – July 2020**

Cyber Defenders Discovery Camp Competition

Python, Central Neutral Network (CNN), Keras, TensorFlow

- Developed and enhanced vital cybersecurity techniques by finding loopholes and capturing the flag
- Delved into the fundamentals of various operating systems, computer access control, firewall, encryption, intrusion detection systems and reverse engineering
- Examined the common types of cyber-attacks including privileged escalation, denial-of-service attacks and multi-vector, polymorphic attacks

TECHNICAL SKILLS

- Experienced: Java, Python, Ruby, React, Vue
- Familiar: C, C++, HTML & CSS, JavaScript, Django, Docker, Kubernetes

ADDITIONAL INFORMATION

- Languages: English (Full professional proficiency), Mandarin (Native or bilingual proficiency)
- Interests: Software Development, UI/UX development, Cyber Security,Computer Vision, Machine Learning, Robotics, Mobile Application, Augmented Reality