Janakitti Ratana-Rueangsri

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SKILLS

Languages	Python	C	C++	TypeScript	HTML	CSS
Frameworks	Angular	Bootstrap	Flask
Tools/Tech	Git	Unity	Qt	Firebase	Figma	Adobe Illustrator	Motion 5	Arduino

EXPERIENCE

Software Engineering Co-op - Providius Corp. 🔗
May 2020 - Aug 2020

- Reduced average CPU usage of a network monitoring web app **by 24%** and enabled seamless integration with third-party vendor apps by developing a custom browser in **C++**, using **Qt** and **Chromium Embedded Framework**
- Built an **Angular** app for simulating practical network connections (packet drop, delay, etc.) using a **Python** and **Flask** backend, **Socketio**, and Linux traffic control
  - Designed a modular and intuitive web interface using **Bootstrap** and **Angular Material**
- Developed system for organizing GDrive files by generating filtered file trees on a webpage using **Google App Scripts**

Programmer - Team 4308: Absolute Robotics (FIRST Robotics)
Sep 2017 - Apr 2019

- Developed the computer vision pipeline to identify target objects on the playing field using **Python**
- Qualified as 2018 FIRST Robotics **World Championship Divisional Semi-Finalists**

PROJECTS

Virtrolio | TypeScript, HTML, CSS, Angular, Firebase 🔗
May 2020 - present

- Worked with a team of 7 to create a web service to allow students to **virtually sign yearbooks during COVID-19**
- Developed a Pinterest-style front-end interface for viewing yearbook messages using **Angular** and **Bootstrap**
- Implemented Firebase **Cloud Firestore** to allow users to privately sign and receive yearbook messages
- Led the designing of the overall product UI/UX and promotional materials

FedoraField | Unity, C# 🔗
Oct 2019 - present

- Developed a **Unity** game in which players interact with enemy projectiles using simulated gravitational fields, modelled using the Unity physics engine
- Built a system for mixing audio based on player actions, creating an adaptive soundtrack for a unique experience

Tangible | Arduino, Unity, C++ 🔗
Oct 2019 - Dec 2019

- Built a 'universal touchscreen' accessory with **Arduino** ultrasonic sensors to enable touch screen capability on non-touchscreen monitors
- Programmed a finger-mapping system to process sensor inputs as taps and gestures on the screen
- Developed a small collection of touch-optimized **Unity** applets to demonstrate effectiveness of hardware

EDUCATION

Candidate for Bachelor of Software Engineering - University of Waterloo
2019 - 2024 (expected)

ACHIEVEMENTS

2019 - Schulich Leader Scholarship Canada ($80,000 value)
2019 - Ted Rogers Scholar
2018/19 - 2-time DECA Ontario Provincial Champion

INTERESTS

- Graphic design
- Game Design
- AR/VR
- Guitar
- Filmmaking
- Volleyball