Cindy Miao

EXPERIENCE

Unmanned Aircraft Systems – UBC Design Team **September 2019 – Present**
Software Team Member *Vancouver, BC*

- Construct sub-components of the aircraft's software system using Python; use Docker to containerize completed functions; involve continuous team discussion
- Developed a script to retrieve and download images every second from a server using HTTP requests
- Implemented a collision avoidance algorithm which predicts whether two aircrafts are likely to collide given their respective flight paths; utilized Django's database API to retrieve past flight data and create SQL database records for testing

Idea Lab Kids **July 2019 – August 2019**
STEM Summer Camp Teacher *Richmond, BC*

- Taught coding, 3D-printing, and science to classes of 3-12 elementary and high school students
- Fostered student interest in STEM through project-based lessons, including car design in CAD, block-code writing, and various science experiments
- Developed lesson slides from the curriculum to help students gain an in-depth understanding of concepts

PROJECTS

Mood (nwHacks) – *React/Bootstrap/Ruby on Rails* **January 2019**

- Constructed a web application that allows users to set their mood and battle monsters by doing positive tasks
- Developed responsive pages with React and Bootstrap, including the login screen and user homepage
- Drew illustrations in Adobe Photoshop to create an appealing user interface

Wikipedia Server – *Java* **December 2019**

- Designed and implemented an abstract data type that provides requested pages from Wikipedia using an API and returns usage statistics; optimized service via caching
- Built a multi-threaded server that uses the data type to handle requests; received and returned JSON strings
- Ensured usage statistics were saved after server shutdown by serialization of the data type to a JSON file

Kamino Game – *Java* **November 2019**

- Constructed a game in which a spaceship must search through a graph of ~200 connected planets for the planet Kamino and return to Earth in the shortest time possible
- Made a generic graph abstract data type; implemented algorithms like Dijkstra's algorithm and depth-first search
- Wrote test cases in JUnit to thoroughly test the data type and the game

EDUCATION

University of British Columbia **Expected May 2022**
Bachelor of Applied Science in Computer Engineering *Vancouver, BC*

- Dean's Honor List: 2018 – 2019
- Orientation Leader; Writer for the official student newspaper, *the Ubyssey*

SKILLS & INTERESTS

- **Computer Skills:**

Java	**JavaScript**	**Python**	C/C++
HTML/CSS	React	Git/GitHub	Docker
Django	Assembly	Linux	Verilog

- **Interests:** blogging; urban sketching; ping-pong; badminton; piano