

Hayden Gunraj

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Skills

Languages: Python, C++, C, HTML, CSS

Technologies & Frameworks: Flask, Git, Requests, Mechanize

Design & Modelling: AutoCAD, Solidworks, Fusion 360

Projects

Crafty July 2016

- Utilized **Python** and **Flask** to implement a chat bot for users to get crafting information for various Minecraft recipes
- Expanded knowledge of **HTTP** protocols and **RESTful API** usage
- Programmatically retrieved and stored crafting recipes from the web using **Mechanize**
- Used **Git** for version control; set up auto-deployment from master to Openshift

YRDSBMarkTools April 2016

- Independently designed and developed a **Python** library for interacting with the York Region District School Board's TeachAssist and CareerCruising websites
- Developed knowledge of web scraping using **Mechanize** as well **HTML/CSS** structure and selectors
- Built tool to export user data using **XlsxWriter**; allows writing to MS Excel files

Golf Tee Robot November 2016

- Designed and programmed a golf tee resetting robot using **C** and the EV3 robot kit
- Employed sensors and error-checking to ensure safe and accurate ball placement
- Implemented error-logging to track and quantify issues with the robot's operation
- Collaborated with team members to ensure smooth integration of the mechanical and software systems

WaterlooYaks February 2016

- Created a bot to automatically tweet yaks from the app Yik Yak using **Python**
- Interacted with Twitter and Yik Yak APIs using Requests and **OAuth**
- Filtered content algorithmically based on popularity and relevancy

Education

University of Waterloo B.ASc, Mechatronics Engineering, 2016 - present

- **Relevant courses:**
 - **GENE 121** - Digital Computation (C++)
 - **MTE 140** - Algorithms and Data Structures (C++)
- **UW Dragon Boat Club** - Paddler