# Rae Jeong

## **Mechatronics**

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**Skills** 

Experience

### Rae Jeong

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Robotic electromechanical design. Robotic manipulator design. Gear reduction design. Motor control.

### Fetch Robotics / Mechanical Engineering Intern

January 2016 - April 2016, San Jose, California, United States

Designed three degree of actuation mechanism for robotic application.

Electromechanical design and analysis.

#### Waterloo Autonomous Vehicles Lab / Research Assistant

September 2015 - December 2015, Waterloo, Ontario, Canada

Gimble implementation and testing for drone research.

Mechanical design of gimbal testing and calibration apparatus.

Writing ROS test scripts for gimbal testing.

#### MakeLab / Robotics R&D Engineering Intern

May 2015 - September 2015, Toronto, Ontario, Canada

Research and development of robotic arm design.

Using ROS as framework and microcontroller for modular joint control.

Modular robotic manipulator design with 4DOF, 1kg payload and 1 meter reach.

## **Projects**

#### Modular Robotic Arm Project / Mechatronics

Project to create an affordable and functional 4DOF robotic arm.

Modular actuator design and control.

Communication and control of the modular actuators.

#### 3D Printer / Mechanical

Fused deposition modelling 3D printer design and build, inspired by Ultimaker design.

Modeled in Solidworks and manufactured using laser cutting and 3D printing.

#### Education

## **University of Waterloo** / Third Year Mechatronics Engineering B.A.Sc