

# Mingyuan Du

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## EDUCATION

**Bachelor of Applied Science**, UBC Engineering Faculty, Vancouver, BC      Completion: May, 2020

- Specialization: Electrical Engineering
- Dean's Honor list (GPA: 85.2%)
- Awards & Scholarships: University Entrance Award (\$10,000)
- Trek Excellence Scholarship (International Students) (\$1,000)
- Key Courses Average (my grade, class average):
  - Electronic Material and Devices (93%, 78%), Systems and Control (93%, 80%)
  - Circuit Analysis (96%, 77%), Electro-Mechanical Energy Conversion (88%, 64%),
  - Data Structure and Algorithm (87%, 73%), Systems and Control (93%, 80%),

## TECHNICAL PROJECTS

**Wind Turbine Synchronous Generator**, UBC, Vancouver, BC      Jan. 2018 – Now

- Programming in C to implement "Perturb and Observe" algorithm to stabilize the generator rotating speed for the maximum energy transfer efficiency
- Designing the whole generator structure in SolidWorks (including gear box, stator, rotor and support structure)
- Designing a PWM controllable Boost Converter and enlarge the output voltage
- Designing a 3-phase full-wave rectifier to convert AC to DC

**Remote-Controlled Robot**, UBC, Vancouver, BC      Mar. 2018 – Apr. 2018

- Designed a Robot that can move with voice or gyroscope control
- Designed a PWM controllable H-bridge to convert DC to AC
- Used a I2C protocol to configure a gyroscope which can detect the change of direction

**Voice-Controlled Reflow Oven Controller**, UBC, Vancouver, BC      Jan. 2018 – Feb. 2018

- Designed a Reflow Oven Controller that can control an oven with different temperatures
- Configured several timers in microcontroller by assembly language to generate interrupt
- Used a Bluetooth module to achieve the voice control

## TECHNICAL SKILL

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|--|--|
| • Electronics Devices (MOSFET, transistor) application | • Mechanical Design (SolidWorks)         |
| • C, python, VHDL and Assembly Language                | • PCB Design                             |
| • MATLAB and Simulink Simulation                       | • Design feedback control system         |
| • Power electronics design                             | • Microcontroller (m8051 and efm8 chips) |

## WORK EXPERIENCE

**Teaching Assistant**, UBC, Vancouver, BC      Sept. 2018 – Now

- Provided supervision and instruction of students in Lab Sections
- Instruction of students in Office Hours to aid with assignments, course materials, and questions to ensure students understand the course material
- Developed communication skill by cooperating with colleagues and supervisors