# Abhayraj Jain

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# PROJECT WORK

- Winner at Hack the North 2017
  Part of a team that designed, built, and coded a self-charging system to track bicycles and view their location live. Winning team at Canada's largest hackathons, with 1000 attendees and 238 submissions.
- » Designed a cross-platform event management system implemented at DeltaHacks IV

  The hardware-cum-software solution increased efficiency by automating check-in, meals, and sharing contact information for 500 people. Secure, advanced functions, and full ability to scale up.
- » Winner of the McMaster University Sumobot Advanced Competition 2017

  Built an autonomous robot which then competed in and won a competition against experienced teams.

#### **WORK EXPERIENCE**

- » Teaching Assistant at McMaster University
  Course: Engineering Design and Graphics
  Instructed 1st year students in CAD design and engineering drawing.
- » Head Coach/Mentor at FIRST Robotics Competition Team 6878 September 2017 Present Coached a group of 14 to 18 year old high school students with no robotics experience. Taught them how to design, program, and build a robot to fulfil the challenges set by the FIRST Organization.
- » Head of Marketing at DeltaHacks IV
  Led a team comprising graphic designers, website developers, and social media managers.
  DeltaHacks is a hackathon hosted at McMaster University every January.
- » Freelance Graphic Designer
  Worked with over a dozen organizations on various graphic design projects.
  Advertisements designed by me have been showcased in Toronto's TTC Subway.
- » Product Design at Instruments & Chemicals Pvt. Ltd., India June 2016 Aug 2016 Worked independently to improve reliability by designing digital replacements for aging analog devices. Accelerated R&D using Java and C/C++ to program a microcontroller and interface with other devices.

### **SKILLS**

- » Engineering Design Design Thinking, Problem Solving, Computation, Error Analysis, Troubleshooting
- » CAD/CAM Design Autodesk Inventor, Solidworks, cncKad, EAGLE
- » Programming & Systems C/C++, Java, Python, MATLAB, Arduino, Linux
- » Graphic Design Adobe PhotoShop, Adobe InDesign, Adobe Illustrator

## **EDUCATION**

- » Bachelor of Mechatronics Engineering, Year 2 (Co-op)
- » International Baccalaureate (IBDP) from The Doon School, India

Expected Completion Apr 2020 Graduated May 2016