

FEILAN JIANG

Versatile software-oriented maker

Goal-oriented problem solver

Inquisitive multidisciplinary learner

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QUALIFICATIONS

Software

C, C++, Python, Java, JavaScript, HTML, CSS

OpenCV, ncurses, Kivy, Plotly, Tkinter, Swing, JavaFX, jQuery, AngularJS, Node.js, Express.js

Git, GitHub, BitBucket

Mechanical

AutoCAD, SOLIDWORKS

Basic machining

Robotics

Arduino, Raspberry Pi

Common sensors, PID loops, finite state machines

EDUCATION

BASc Mechatronics Engineering, University of Waterloo

EXPERIENCE

Software Developer

Nanometrics Inc.

1/2017-4/2017

- **Devised** a standardized SD wear rate testing methodology involving SMART data and standard SD controller commands
- **Optimized** performance on Linux-based seismometers by fine-tuning JVM memory consumption
- **Automated** platform-specific compilation of internal software tools using the Autotools suite

Programming Lead

FRC Team 4783

9/2016-5/2017

- **Mentored** inexperienced younger students on the fundamentals of C++ robotics programming
- **Coordinated** team logistics with other department leads to ensure the robot was competition-ready

PROJECTS & ACTIVITIES

Fog-screen Hologram

Collaborative Project

1/2017-present

- Goal is to produce a low-cost, hyper-realistic volumetric display with applications in augmented reality, CAD, etc.
- Utilizes OpenCV vision processing to detect human observers' faces and hand gestures in various lighting conditions

Robotics

UW Robotics Team

9/2016-present

- Currently involved with sensor mount design for the Robot Racing competition
- Oversaw the creation of a competition-winning, Arduino-powered line-following robot that plays musical notes according to the length and shade of the line

Mobile Game Dev

Independent Project

6/2014-6/2015

- Conceptualized, implemented, and published a cross-platform, colour-based puzzle game designed to please the eye and stimulate the mind
- App won top prize for game design and technical sophistication at the 2015 TechU.me AppJam finals in Ottawa