Matthew J. Barichello

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Experience

February 2018 - present — **Programming and Computer Science Tutoring**, *Assumption College High School*
- Private online Java programming tutoring during weekdays after school
- In-class Java programming and computer science conceptual tutoring

September 2015 - June 2017 — **Programming and Electrical Engineering Mentor**, *Assumption Robotics Club*
- Taught and mentored Java and C programming and circuit design and implementation in robotics

2013 - present — **Multi-tiered Networking and Server Deployment**, *Blind Beast Servers, Home Lab*
- Deployed fault tolerant continuous integration, git repository and DNS caching servers across multiple hosts in the cloud
- Deployed a lights-out, PXE boot based, KVM cluster over 10Gbe, with redundant 1Gbe seamless fallback routes and isolated management NICs, utilizing mixed consumer-grade and industrial computing solutions

Projects

July 2018 - present — **Logic Analyzer Repair and Restoration** - ESP8266, C++, CMake, Bash
- Currently restoring a Philips 3585 Logic Analyzer requiring main-board component level repairs, power supply repairs, EEPROM re-flashing and custom hand-built logic probes

July 2018 - present — **Pal** - Java, C++, Groovy, Gradle, CMake
- Created a Java compiler extension that enables meta-programming through annotations, while retaining full compatibility with preexisting and future JVM and JDK specifications

April 2018 — **Space Bodge** - Java, Lua, JavaScript, Gradle, ESP8266, Arduino
- Created an IoT inspired, open-source, cost-effective, and wifi-enabled game controller architecture backed by web sockets and scripted in Lua

August 2017 — **congenial-octo-enigma** - Java, Maven, Apache Commons
- Created a multi-threaded recursive NBT tree walker with a callback-based binary tag evaluator and interjection API, in Java

Languages & Frameworks

Languages	`Java; C; C++; Groovy; Bash; m4; LaTeX; Python; Lua; Pascal`
Operating Systems	`Windows; macOS; Linux (Debian & derivatives; Red Hat & derivatives; Arch)`
Frameworks	`Processing; OpenCL; OpenGL; Apache Commons; LUKS; Systemd; Iptables; Init; Cron`
Build Tools	`Gradle; Maven; Ant; CMake; Make; Autotools; Waf`

Education

September 2015 - present — **Ontario Secondary School Diploma** *Assumption College High School (ongoing)*

International Baccalaureate Certificate *Assumption College High School (ongoing)*

July 2015 — **DMA Certificate for Advanced Java Programming** *University of Toronto*

Competitions

December 7, 2018 — **15th Windsor Regional Secondary School Programming Competition**

September 14-16, 2018 — **Hack the North 2018**

April 28-29, 2018 — **Massey Hacks IV**

April 1-2, 2017 — **Massey Hacks III**

May 21-22, 2016 — **Massey Hacks II**

Awards

2018 — **First Place Programming Team Award**, *University of Windsor*

2018 — **First Place Hacker**, *Massey Hacks IV*

2018 — **Best Hardware Hack**, *Massey Hacks IV*

2016 - 2018 — **Honour Roll**, *Assumption College High School*

2015 — **Science Proficiency Award**, *St. William Elementary School*

2015 — **Academic Excellence Award**, *St. William Elementary School*