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| ✉ [roryohayes@gmail.com](mailto:roryohayes@gmail.com) | **Rory O. Hayes** *Software & Computer Engineer* | <https://roryhay.es>   [github.com/rorosaurus](https://github.com/rorosaurus)   [linkedin.com/in/roryhayes](https://www.linkedin.com/in/roryhayes/)  |

# **Skills**

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| * Java, Android SDK * HTML5, CSS3, Liquid, Jekyll * JavaScript ES6, TypeScript, Script# | * C, C++, C#, Python, PHP * Azure, Google Apps Script * Git, SVN | * IOT, AVR, ESP32, Teensy, RP2040 * SPI, I2C, I2S, UART, LoRa, Mesh * PCB design, hardware integration |

# **Experience**

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| **Roro’s Mods – Online Store (Amazon, Tindie)**  **Owner, Designer, Developer, Director** | ***Bellevue, WA***  ***December 2018 – Present*** |
| * Produced 1k+ custom PCBs for charging old electronics using USB-C; "Excellent" Customer Experience rating * Developed 10km range mesh-network GPS device for emergency medical use at 30,000+ person events * Designed a PCB to drive commercial HUB75 LED panels roughly 3 orders of magnitude more efficiently | |
| **Self-Employed – Side Projects**  **Software, Computer, and Electrical Engineer** | ***Bellevue, WA***  ***December 2018 – Present*** |
| * Built and hosted new websites for customers using HTML5, CSS3, JavaScript ES6, Liquid, and Jekyll * Deep dive into Android .apk “patching”; modified existing published apps to provide new/extra functionality * Developed immersive live style-transfer VR/AR experience using TensorFlow Lite on Android * Collaborated with 10+ customers and partners (in person and remote) on a variety of LED art installations * Designed new product PCB and firmware for major consumer LED company; entering mass production soon * Designed and maintained 1kW+ solar power grids for various customers to use in extreme conditions | |
| **Microsoft Corporation (FTE)**  **Software Engineer 2 at Microsoft CRM (Dynamics 365)** | ***Redmond, WA***  ***July 2013 – December 2018 (5.5 years)*** |
| * Created new hybrid (physical/virtual) lab of ~70 devices for automated test case execution using Selenium   + 100’s of coworkers used lab to save hours of manual config testing; added suggested features * Sole owner of all validation for entire box product, an add-on used by ~80% of our customer base * Maintained several product codebases, including integration of new features across multiple repositories * Brought multiple applications into GDPR compliance within extreme time crunch; preventing costly fines * Created system to validate user customizations; non-breaking changes are core to MSFT business strategy * Led release of a custom low-latency drone tracking solution as Chapter Lead of the Drones Maker Garage | |
| **Software Engineer in Test at Microsoft CRM (Dynamics 365)** | |
| * Led development of custom solution for emergency critical migration of 35k+ automated test case database   + Partnered across all product teams to ensure their workflows would remain satisfied with new schema   + Documented/presented adjustments to procedure for test case execution, reporting, and dashboards   + Realistic timeline (~8 weeks) not an option – only had 3 weeks; completed on time with all fields verified * Orchestrated our offshore vendor team, increased test execution throughput by ~40% to cover all supported client/OS combinations in single pass, oversaw development of new automated test cases * Built/maintained several shared critical environments needed by team to test different customer scenarios * Created and executed test plans for new features, and executed legacy test cases for shipping sign-offs | |
| **C.A.R.E. [501(c)(3) prev. known as Conscious Crew (USC Events)]**  **Volunteer and Stage Lead** | ***Seattle, WA***  ***October 2016 – Present*** |
| * Harm reduction non-profit which promotes health and safety in the Pacific Northwest music community * First responder to medical emergencies at dozens of large, high-risk concerts and outdoor festivals * Lead coordination of 100’s of volunteers, ensuring the safety of 30k+ event attendees across difficult terrain | |
| **Technology Education and Literacy in Schools (TEALS)**  **Volunteer Teacher** | ***Issaquah, WA***  ***September 2016 – May 2017 (1 year)*** |
| * Taught high school students AP Computer Science 3 days/week; curriculum, tests, homework, projects, etc. * Conceived, documented, and executed a new post-exam project for TEALS: students created an Android app to control a Drone, plot a mission course, and frame/record video footage using SDK * 95% of students passed exam and received college credit; 50% of students got the highest grade possible! | |
| **National Information Solutions Cooperative (NISC)**  **Part Time Developer** | ***Lake St. Louis, MO***  ***May 2011 – December 2012 (1.5 years)*** |
| * Created a dashboard for customers to predict future electric load using research models, historic usage, and upcoming weather patterns; electric companies used results to anticipate future electrical grid load * Built internal tooling around cloud clusters; created dashboard to monitor cluster health and statistics * Mentored several new interns, helping them take their own projects from start to finish | |
| **Product Innovation and Engineering, L.L.C.**  **Undergraduate Research Assistant** | ***Rolla, MO***  ***October 2010 – May 2011 (6 months)*** |
| * Developed an industry-grade program to slice a 3D model and generate G-code to facilitate laser deposition of powered metal, using a 6-axis robotic manufacturing arm repurposed from a car assembly line * Primary contact with an external consulting group we hired to develop and integrate several algorithms | |

# **Education**

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| **Missouri University of Science and Technology** (Rolla, MO) | ***August 2009 – May 2013 (4 years)*** |
| **B.S. in Computer Science, B.S. in Computer Engineering,**  Minor in Mathematics | |

# **Honors & Accomplishments**

* Life Member of Kappa Kappa Psi, the Honorary Band Service Fraternity
* CPR, AED, and First Aid Certified
* 2014 MSFT Hackathon project vision was recognized and developed into two full CRM product features
* 2016 MSFT Hackathon project was awarded by Senior Leadership and demoed to U.S. DoD
* Intern Social Club Leader (April 2014 – December 2018)
  + Helped University Recruiting organize dozens of events for 100’s of interns every summer, maximizing their experience with Microsoft and Seattle and converting many to full-time
* Head Recruiter for recruiting trips to several Midwest Universities (September 2014 – September 2016)
  + Attended career fairs, sorted resumes, conducted interviews, guest spoke/taught classes
  + Worked with campus faculty/leadership to develop ongoing relationship with Microsoft
  + Went from an average of 0 hires/year in 2013 to 19 hires/year in 2019!