Rory O. Hayes
Software & Computer Engineer

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Skills

Java, C++, C#, Python, Android SDK	React, Node, Express, MongoDB	IOT, AVR, ESP32, Teensy, RP2040
Azure, Google Apps Script	HTML5, CSS3, Liquid/Jekyll	SPI, I2C, I2S, UART, LoRa, Mesh
Git, GitHub CI/CD, SVN	JavaScript ES6, TypeScript, Script#	PCB design, hardware integration

Work

Computing For All − Non-profit − Instructor, Fellow ———— Remote ——— March 2024 - Present
- Crafted new coursework for Pre-Apprenticeship students to learn modern web technologies
  - Topics included: HTML, CSS, JS, React, Node, Express, MongoDB, encryption, and auth
- Instructed a spring cohort of students through completion of the highest level Pre-Apprenticeship program
  - Structured the final project to be a live service with GitHub CI so students have legitimate experience
- Developed internal automation and designed web-based job placement tool for future students

Roro's Mods − Online Store − Owner, Engineer, Developer ———— Bellevue, WA —— Dec 2018 – Present
- Produced 1k+ PCBs for charging electronics using USB-C, achieving "Excellent" Customer Experience rating
- Piloted a 10km range mesh GPS/messaging device for emergency medical use at large (30,000+) events
- Designed a $4 PCB to drive commercial HUB75 LED panels, increased efficiency by three orders of magnitude
- Collaborated on LED art installations and designed PCBs/firmware for mass production at a major LED mfr
- Developed immersive live style-transfer VR/AR experience using TensorFlow Lite on Android
- Designed and supported new websites for customers using HTML5, CSS3, JavaScript ES6, Liquid, and Jekyll

Microsoft Corporation (FTE) – Software Engineer 2 (Dynamics 365) ——— Redmond, WA —— July 2013 – Dec 2018
- Created hybrid (physical/virtual) lab of ~70 devices for automated test case execution using Selenium
  - 100's of coworkers used lab to save 1,000s of hours of manual testing and improve testing throughput
- Managed all validation for an entire box product, an add-on used by 80% of our customer base
- Maintained several product codebases, creating new features and fixing bugs for multiple client devices
- Improved developer workflows for CI/CD and automated pre-built environment allocation used for testing
- Brought multiple applications into GDPR compliance within extreme time crunch and prevented hefty fines
- Implemented a tool to validate customizations upon software upgrade – protecting a core MSFT strategy

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 new procedure for test case execution, reporting, and dashboards to all stakeholders
  - Realistic timeline (~8 weeks) not an option – only had 3 weeks; completed on time with all fields verified
- Streamlined testing config matrices, improving test execution efficiency by over 40% without lost coverage
- Orchestrated our offshore vendor team executing manual test cases and developing new automated tests
- Built/maintained several shared critical environments needed by team to test different customer scenarios
- Created and executed test plans for new features; executed legacy test plans for shipping sign-offs

Education
Missouri University of Science and Technology − **B.S. in Computer Science, B.S. in Computer Engineering**

Additional Experience
- **Volunteer High School AP CS Teacher** (2016-2017)
- Intern: built **distributed data systems** for large co-op: **smart electric meter data mgmt** and cluster dashboards
- Research: Developed 3D model slicer used to **3D print metals using laser deposition with a 6-axis robotic arm**
- Life Member of Kappa Kappa Psi, the Honorary Band Service Fraternity
- CPR, AED, and First Aid Certified - **Volunteers with Harm Reduction non-profits** at large outdoor music events
- Won several awards for multiple projects at internal Microsoft Hackathons (2014, 2016)
- Head Recruiter for Microsoft recruiting trips to several Midwest Universities (2014 –2016)