

Resume

Matthew R. Clark

contact@mclarkdev.com



Profile

An experienced Systems QA Engineer with 10+ years Robotics, 6+ fortune 50 & fast-paced environments. Driven by the bleeding edge of the latest technologies and by a thirst for knowledge, awaiting challenging new opportunities in the robotics space. Proven track record of driving software quality to the highest levels across a broad range of technologies. Passionate for working hands-on with both hardware and software, helping to bridge the gap between the physical and digital worlds.

Experience

Private Consulting

Principal Engineer

Greater Boston, MA – 10/2021 to Present

- ▶ Advised clients on hardware / software needs for business operations. Implemented custom server rack builds.
- ▶ Develop and execute test plans for features under development. Manipulate databases and APIs to trigger specific behaviors.
- ▶ Validate whole stack creation and shutdown, custom scripts to manage Azure based platform stacks.
- ▶ Developed various test environment and quality of life improvements.

Amazon Robotics, Amazon.com, Inc.

Sr. Software QA Engineer

*North Reading, MA – 04/2020 to
10/2021*

- ▶ SME and Lead QA Engineer for Android based application responsible for managing all aspects of a large robotic fleet.
- ▶ Supported various components of the fulfillment platform. Coordinated with development to validate new features, write test plans to ensure adequate coverage, and to build / execute both functional and regression tests.
- ▶ Supported the prototyping and development of experimental workcells.
- ▶ Performed in-depth troubleshooting of both software and hardware systems.

Sr. Software QA Engineer

Seattle, WA – 04/2018 to 04/2020

- ▶ Lead QA Engineer for RoboSort development team. Qualified a workcell now responsible for sorting most items inbound to Amazon fulfillment centers. Joined a team with 6 workcells deployed in beta, left the team with

Matt Clark

both engineering and customers.

- ▶ Coordinated with development to validate new workcell features and build an automation framework.
- ▶ Developed an extensive set of manual, integration, and regression test cases.
- ▶ Traveled both domestically and internationally, supporting customers with site deployments.
- ▶ Frequently facilitated tours and demonstrations across various warehouses and advanced robotic workcells.

Software QA Engineer

*North Reading, MA – 03/2017 to
04/2018*

- ▶ Developed a 24h/7d smoke-test environment for quickly detecting bugs in an always changing CI/CD environment.
- ▶ Created a web interface for scripting API calls to various micro-services, still deployed assisting engineers today.
- ▶ Discovered multiple exploits of physical hardware by using malicious barcodes.

Salesforce.com, Inc., Commerce Cloud

Software Engineer in Test

Burlington, MA – 03/2015 to 03/2017

- ▶ Deployed a custom metrics storage solution fronting 10M+ data points per minute using AWS.
- ▶ Deployed CheckMK across a fleet of 1k+ Linux nodes, configured host health monitors with alarms for abnormalities.
- ▶ Developed test wrapper and framework to validate changes in web-tier components.

Education

Johnson and Wales University Providence, RI

Bachelor of Science Electronics Engineering

09/2011 to 02/2015

Associate of Science Robotics Engineering

09/2011 to 02/2014

Skills

Languages

– Java, Javascript, Python, C/C++ (Embedded), PHP, (My)SQL, MATLAB

Linux

– Terminal [bash, ssh, scp, ps, find, vi, grep, dd], LibVirt/QEMU, Docker, Apache

Robotics

– Fanuc, UR, Opex, Dematic, Allen-Bradley, ABB, Kiva, Various custom solutions

Embedded

– Arduino, ESP32, RaspberryPi, Pine64, FPGA, RTOS, RTC, GPS, EMU, PLC

Wire Protocols

– TCP/UDP (VLAN), RS232/RS485, SPI, I2C, CAN, OBDII, ModBus, EtherNet/IP

RF Technology

– Licensed HAM Operator (G/KC1RNQ), SDR, HackRF, Antenna Theory, Filters, Amps

Other

Servers & VMs

more

- Multiple servers and racks deployed physically across New England.
- Numerous virtual machines providing various web services and applications.

BarcodeAPI.org

more

- A free web-base generator for barcodes of many types. Serves over 500k requests daily, worldwide.
- Documentation and REST API for automated barcode creation, ability to self host / embed.

Home Automation

- Custom Home Automation Suite
- Configurable dashboards, script engine, alarms, and more.

Aviation

- Student Pilot Certificate
- 24h+ in Rotorcraft operations
- 8h+ in Fixed-Wing operations
- Aviation Medical Certificate, 3rd Class

Everything Else

more

- Radio Control Fleet ~ Cars / Planes / Quads
- 100-Watt CNC Laser Cutter & 3D Printing
- Homesteading with Quail