Joshua Cullen

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PERSONAL STRENGTHS

- **5 years** of professional experience working in software QA
- Extensive experience building automated API and UI test suites using NUnit, Cypress, & Selenium
- Experience building software QA processes from the ground up in a fast-paced start up environment
- Places significant value in adhering to development principles such as **DDD** and **TDD**
- Self-motivated programmer exemplified by personal development (Python/JavaScript/Bash scripting)

TECHNICAL SKILLS

- JavaScript
- Python, Django
- Selenium, NUnit
- Bash/Zsh scripting
- C#, WPF, LINQ
- Git, Gitlab CI/CD, & Jenkins
- Docker, Kubernetes
- Java, JUnit
- Esri ArcGIS (REST API, Desktop/Pro, Online)

EXPERIENCE

Head QA Engineer

Gridspace | Los Angeles, California

📅 Dec 2021 - Present | *Full time*

- I am head of a small QA team in an overall engineering team of 30 people. Due to the broad scope of QA I have to wear many hats from QA, DevOps/release, product manager, to technical support.
- I employ grey box testing to facilitate our monthly releases. I have pioneered Gridspace's QA and product management processes and am constantly seeking to improve these processes where possible.
- Built and maintain an extensive suite of nightly cross-browser end-to-end tests using Playwright.
- Own and maintain the CI/CD pipeline (through Gitlab CI).
- Built and own the support correspondence system and procedures.
- I also author Gridspace's monthly release notes. See them here!

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Product Engineer - ArcGIS Online Hosted Services Team

Esri | Redlands, California

📅 Dec 2018 - Dec 2021 | *Full time*

- Duties include: designing common (and uncommon) geographical workflows, writing automated UI and REST API tests, identifying and triaging bugs, communicating with the support team/customers, and writing effective documentation.
- Two main product focuses: The Location Tracking service, a new type of service that stores its data in CosmosDB on the Azure cloud; and Hosted Notebooks, a new product based on Jupyter Notebooks that focuses on geospatial data analysis using existing ArcGIS products (ArcGIS API for Python and ArcPy).
- Act as a liaison between customers, the technical support teams, and the development teams to provide solutions and workarounds for issues, and to facilitate bug fixes.
- Develop and design test suites in C# to test a multitude of the ArcGIS Online backend REST APIs using the NUnit test framework.
- Develop automated UI tests in Java using Selenium WebDriver to facilitate the development of ArcGIS Online Hosted Notebooks and ensure healthy integration into the ArcGIS platform.
- Use Jenkins to regularly build test suites and send out reliable and communicative test reports.

Jr. GIS Specialist

VineView | Bedford, Nova Scotia

📅 June 2018 – Sept 2018 | *Contract*

- Worked on a small team to create vineyard health reports using imagery analysis methods with QGIS.
- Automated many aspects of the necessary data processes and product creation using Python 2.7.

Fisheries Technician

Nova Scotia Salmon Association | Sheet Harbour, Nova Scotia

📅 Sept 2016 – Dec 2016 | *Co-op term*

- Supervised the aerial application of powdered limestone to the local watershed and collected complex population data of Atlantic salmon via electrofishing surveys and the operation of a fish weir.

Research Assistant

Agriculture and Agri-Food Canada | Kentville, Nova Scotia

📅 Sept 2015 – Dec 2015 | *Co-op term*

- Conducted lab and field analysis on large amounts of soil, gas, water, and plant samples (both independently and in teams) following specific scientific procedure.

EDUCATION

Advanced Diploma in GIS

Centre of Geographic Sciences (NSCC) | Lawrencetown, Nova Scotia

🎓 June 2018

Bachelor of Science in Environmental Science (Co-op Option)

Acadia University | Wolfville, NS

🎓 May 2017

AWARDS, CERTIFICATIONS, & VOLUNTEER EXPERIENCE

◈ Modern JavaScript From The Beginning | *May 2021*

- Udemy course covering web development using 'pure' JavaScript ES5. 10 projects that cover the DOM, async programming, OOP with ES5 & ES2015, RegEx, and more.

🏆 Dr. Roger F. Tomlinson Prize for Excellence in GIS Studies | *April 2018*

- Awarded annually to an Advanced Diploma in Geographic Sciences graduate who possesses a passion for learning, who demonstrates superior work habits, and who has achieved above average academic standing in GIS related courses. ($1000)

PROJECTS

🚗 Realtime GTFS Data Visualisation in a .NET desktop application - NSCC Capstone project | *June 2018*

- For my end of year project at COGS, I decided to focus on processing and visualisating GTFS data, the universal geographic data format for public transit system schedules and live vehicle locations.
- Using PL/pgSQL to process the static GTFS data and GtfsRealtimeBindings, ArcGIS Pro, QGIS, and the ArcGIS Runtime SDK for .NET to process the real-time GTFS data and build the application, I created a .NET desktop application that allows a user to visualise Halifax's and Vancouver's transit system, both retrospectively and in real-time.
- Click here to see my presentation slides for this project - https://bit.ly/3akbXJk