

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!](#)

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.
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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.
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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.
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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)
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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 visualising 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>