

# Joshua Cullen

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## PERSONAL STRENGTHS

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- **4 years** of professional experience working in software QA
- Extensive experience building automated API and UI test suites using NUnit, Cypress, & Selenium
- Experience building QA processes from the ground up in 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

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- JavaScript
- Python 2.7/3.6, Django
- Cypress, Selenium, NUnit
- Git, Gitlab CI/CD, & Jenkins
- Bash/Zsh scripting
- C#, WPF, LINQ
- Java, JUnit
- Docker, Kubernetes

## EDUCATION

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Advanced Diploma in GIS

**Centre of Geographic Sciences (COGS) - Nova Scotia Community College** | Lawrencetown, Nova Scotia

 June 2018

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

**Acadia University** | Wolfville, NS

 May 2017

## EXPERIENCE

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Head of QA - Engineering

**Gridspace** | Los Angeles, California

 Dec 2021 - Present | *Full time*

- I am head of a small QA team for an overall engineering team of 25 people. Due to the broad scope of QA I have to wear many hats from QA engineer, DevOps/release engineer, product manager, to technical support engineer.
- 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 front-end tests using Cypress.
- Own and maintain our CI/CD pipeline (through Gitlab CI).
- Built and currently run/own Gridspace's 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 2019 | *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.

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## 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.
- Recorded accurate habitat surveys, installed river equipment, and repaired areas of damaged habitat.

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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.
- Managed and processed large datasets using Excel to interpret results and visualize conclusions.

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## 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>