

# MICHAEL ISSA

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## Python Developer

**Motivated developer and team player continuously striving to add value.**

I am a self-driven and self-taught software developer with experience in the oil & gas and aerospace industries. I am very passionate about the future of automation, software configuration, and machine learning as AI begins to play more of a main role in our lives.

I am continuously learning about software infrastructure & architecture, cloud deployment and continuous integration. I am capable of creating and maintaining APIs through OOP principles, creating unit, integration and acceptance tests, and automating workflow for continuous delivery. I have a deep understanding of the design, test, build, release and deploy processes in the software development lifecycle, and I am able to effectively communicate with the team to debug issues.

**Python | C# | JavaScript | jQuery | JSON | SOAP | REST | DOM | SQL | MVC  
Unit Tests | Ansible | Jenkins | Docker | Linux | VMs | AWS**

**HALLIBURTON**, Conroe, TX

**Software Developer – Python & C#**

**01/2018 – 10/2019**

- Developed Python applications to automate CAD/CAM workflow for NC programmers.
- Converted MWD data using engineering formulas passed down in MATLAB to Python.
- Data visualization (NumPy & PowerBI) presented to stakeholders on cost of production.
- Created unit and integration tests using Test Driven Design principles.
- API Integration testing using CI/CD tools including Docker and Jenkins.
- Gained exposure to AWS and automating workflow using Ansible.
- Python web scraping (BeautifulSoup, Requests) to build database of manufacturing tools.
- Migrated cutting-tool database (mongoDB) with CAD/CAM API using RPA with SwaPy.
- Maintained automated CAD/CAM framework solutions and ensured proper updates/rollbacks.
- Refactored appropriate solutions and integrated unit-testing (PyTest) and version control (Git).
- Wrote documentation and participated in peer reviews for new products.
- Created work methods to appropriately train employees using new tools in production.
- Supported design reviews for new Down Hole products & tools with manufacturing engineers.

**LZ TECHNOLOGY, NASA JSC**, Houston, TX

**Software Developer – Python & C#**

**08/2015 – 09/2017**

- Supported Orion cockpit display team by automating electronic procedure creation process.
- Updated flight data with automated solutions using spreadsheets, SQL databases, & XML files.
- Simulated flight trajectory by extracting & manipulating data then binding to XSD Schemas.
- Developed RPA solutions using Python & EggPlant to create flight display procedures.
- Data Visualization (flight telemetry data into trajectory vectors) using Pandas and Matplotlib.
- Containerized web applications, contributed to team with daily commits and weekly merges.
- Automated test, build, release & deploy workflows using Jenkins and Ansible on local VMs.
- CI/CD improvement on Software Development Life Cycle and server administration using SSH.
- Presented prototype and provided 1<sup>st</sup> line of support on testing systems.
- Exposure to dependency Injection, LINQ, Generics, OOP principles and QA/unit testing.

- Exposure to SOAP, JSON, XML messaging, REST, jQuery, DOM, TypeScript.
- Exposure to Docker containerization and AWS cloud deployment technologies.
- Reviewed and maintained web-pages and layout files using ASP.NET Core.
- Ensured prototype appropriately merged and migrated with production flight display systems.
- Administered locally cached files stored on VMs running servers using SSH.
- Collaborated with team in daily scrums and monthly sprints.

### **Mechanical Engineer I**

**01/2015 – 08/2015**

- Designed, prototyped and manufactured a flight grade RHC (joystick) using Solid Works.
- Presented and trained astronauts on RHC for training purposes in Orion cockpit trainer.
- Collected feedback and revised design intent through different iterations of the prototype.
- Implemented safety features through feedback systems designed to limit range-of-motion.
- Supported design reviews for new flight grade products & tools with manufacturing engineers
- Designed, manufactured, and presented an EVA tool for asteroid sample collection.
- Researched and published article providing thesis of deploying inflatable structures on Mars.

### **NATIONAL OILWELL VARCO, Conroe, TX**

#### **Engineering Intern**

**06/2015 – 08/2015**

- Supported GUI application using Excel and Visual Basic for internal web applications.
- Exposure to ServiceStack .NET Framework & asynchronous event handling.
- Provided analytical and problem-solving skills to deliver business solutions.
- Contributed in daily scrums with team members to ensure sprint deadlines were met.

### **EDUCATION**

**Bachelor of Science** Mechanical Engineering - Minor in Controls Engineering  
The University of Texas at Tyler, Houston, TX, 2017, GPA: 3.60

### **PORTFOLIO**

<https://github.com/mellowMike92?tab=repositories>  
[https://drive.google.com/drive/folders/1jYLqZ\\_TzgJZvf7UYuzHTgP\\_89MIJw36d?usp=sharing](https://drive.google.com/drive/folders/1jYLqZ_TzgJZvf7UYuzHTgP_89MIJw36d?usp=sharing)