

James O'Connell

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Professional Experience

Satellite Ground Systems Software Engineer (TS/SCI), RTX

Dec 2023 – Present

Java, Docker, Kubernetes, AWS

Denver, CO

- Collaborated with peers on learning/development plans and experiment through building APIs while awaiting access.
- Completed 'Writing Successful Requirements' course to better craft comprehensive project specifications.
- Actively working a comprehensive Java development curriculum, complementing mission management and C2 software.

Full-Stack Software Engineer, USAA

May 2021 – Dec. 2023

Java, SpringBoot, React.js Node.js, Docker, AWS, OCP, REST, Hibernate/JPA, DB2

Phoenix, AZ

- Developed and maintained event-driven P&C Insurance Communications System Java APIs and Kafka streams.
- Reduced toil of O&M availability teams by building resources to reconcile reinstated communication packets.
- Migrated a series of Java APIs from SpringBoot 2.7.x to 3.x.x/Java 11 to 17, and JBoss to SpringBoot.
- Identified & triaged on-call production issues/defects during and after code deployments.
- Mentored, guided and developed features for interns on Java API development, Agile methodologies and SDLC.

Teacher, Microsoft TEALS

Oct. 2020 – May 2021

Python, Education, Mentorship, CS Foundations

Tucson, AZ

- Educated high school students in computational thinking, problem solving, coding, and computer science concepts.
- Provided a hands-on learning in which students' learn through discovery, experimentation, and application.

Software Engineer, Lunar & Planetary Laboratory

May 2019 – Jan. 2020

Python, C, Remote Sensing, Simulation, Analysis, Research

Tucson, AZ

- Developed/maintained simulation software utilizing air/spaceborn sounding radargrams to assist planetary investigation.
- Provided requirements analysis to shape the roadmap to the needs of research specialists.
- Collaborated in the analysis of remote sensing data to better understand debris covered glaciers on Mars & Earth.

Infantry Fireteam Leader, U.S. Army, 82nd Airborne Division

Jan. 2015 – May 2018

Leadership, Resource Management, Risk Analysis, ConOps, Mission Planning

Fort Liberty, NC

- Executed the planning/assessment of training exercises in high pressure, fast moving, dynamic and ambiguous scenarios.
- Led 2-4 man fireteams in airborne/combat operations across austere environments(Afghanistan, Jun. 2017 – Mar. 2018).

Projects

Production Support Tool, Java, SpringBoot, React.js, SQL, Docker, AWS/OCP

Jun. 2023

- Designed/built Java APIs with a React web app interface that provides accessibility, and streamlines manual tasks.
- Implemented an event listener to provide oversight and accountability on users executing data modifications.
- Leverages Hazelcast for distributed in-memory caching to improve latency, flexibility, and manageability.
- Built out a ServiceNow service to facilitate governance when modifying production data with a resource.

Surface Clutter Simulator, Python, C, numpy, gdal, ctypes

Jan. 2020

- Generates two-dimensional left/right-side(of the spacecraft) cluttergram images, each containing surface reflections.
- Leverages digital surface models, geographic, geometric and ionospheric properties sourced from NASA's PDS as inputs.
- Increases confidence that interpreted subsurface features in radargrams are not a product of surface topography.

Education

Bachelor of Science in Computer Science, University of Arizona

Dec. 2021

Project Management Certification, Google

Jun. 2023

Skills

Languages: Java, Python, Javascript, HTML, CSS, SQL, C

Frameworks: SpringBoot, React.js, Kafka, JUnit, Jest, Pitest, JPA/Hibernate, DB2

Tools: Docker, Kubernetes, AWS, Git/GitLab, npm, Gradle, Helm, Postman, OpenShift, ElasticSearch, Grafana

Publications

Christoffersen, M. S.; Holt, J. W.; Kempf, S. D.; O'Connell, J. D. *MRO SHARAD Clutter Simulations Data Products*. 2021. PDS Geosciences (GEO) Node. <https://doi.org/10.17189/nbdh-2k53>