

GONZALO TUCKER

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[GitHub](#)
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[Portfolio](#)

RELEVANT EXPERIENCE

Production Support Engineer (JR to Senior), CircleBlack Inc.

November 2021 – July 2024

- Engineered **automated solutions** for complex monthly reporting and **data transfers**, reducing manual efforts and ensuring **timely, accurate information availability** [DE] [DA] [PD]
- **Engineered and executed Python-based solutions** for large-scale data adjustments, **affecting thousands of records across multiple tables** in production databases, ensuring data integrity and consistency while **proactively resolving issues before client exposure** [DE] [PD]
- **Leveraged AWS services** including S3, RDS, and EC2 to **enhance data processing workflows**, including **revamping a critical S3 downloader script** and **implementing secure SFTP transfers for monthly reporting**, demonstrating proficiency in cloud-based data solutions [DE] [PD] [CS]
- Resolved over 3000 JIRA tickets supporting a critical financial advisory application, encompassing tasks such as troubleshooting integration issues, performing custom setups, resolving data discrepancies, and developing tailored SQL reports. Created extensive documentation for novel issues, enhancing the team knowledge base and improving future response times.
- **Engineered a data anomaly detection dashboard** using Python and Plotly, to identify and visualize daily return outliers. This tool **significantly enhanced data quality control**, enabling proactive issue resolution and **improving client satisfaction**. The dashboard's success was **recognized company-wide** and featured in corporate communications. [DE] [PD] [DA]

Lab Tech to Software Engineer, Digital Communications Solutions

November 2020 – November 2021

- Developed and implemented comprehensive test plans, cases, and processes for 5 major software releases using JIRA. **Significantly enhanced software reliability** and **streamlined QA workflow**, resulting in a notable reduction of post-release issues. [DE] [PD] [DA]
- Developed a data visualization dashboard that **guided critical decisions in software testing meetings**. The tool **facilitated identification of data anomalies**, leading to **timely code patches** and **more targeted testing strategies**. This significantly **enhanced the engineering team's efficiency** in bug detection and resolution. [DE] [PD] [DA]
- **Served as the primary owner for an IoT sensor product**, creating comprehensive documentation covering product functionality, shipping procedures, and testing protocols. This **end-to-end documentation** was instrumental in ensuring a **successful product release** and **facilitating seamless knowledge transfer** across teams. [PD] [CS]

TECHNICAL SKILLS

- Languages: Python (proficient), SQL (MySQL, PostgreSQL), JavaScript (familiar)
- Frameworks & Libraries: Flask, React, Pandas, NumPy, Matplotlib, Plotly, scikit-learn, TensorFlow
- Cloud & Big Data: AWS (S3, RDS, EC2, Lambda, API Gateway), Azure, PySpark
- Data Engineering: Apache Airflow, ETL processes, Data Automation
- Other: API Development (RESTful), Linux, QA, Tableau

RELEVANT PERSONAL PROJECTS

Air Quality Monitoring System

- Technologies used: Python, AWS (Lambda, API Gateway), PostgreSQL, Git
- Engineered an **automated ETL pipeline** using AWS Lambda to hourly scrape and **process RSS feed data from ~50 locations** across Washington state.
- Implemented a PostgreSQL database with **custom SQL procedures for efficient data cleaning and storage**.
- Developed a RESTful API using lambda functions and AWS API Gateway, creating multiple endpoints to serve current and historical air quality data.
- Designed a basic dashboard for data visualization, allowing users to explore air quality trends across different locations and time periods.

Community Horror Book Club Web Application

- Technologies used: React, Python, AWS (Lambda, API Gateway, CloudFront, S3), PostgreSQL, Flowise Git
- **Developed and deployed a full-stack web application** integrating front-end, back-end, and cloud technologies for a local horror book club.
- Engineered back-end logic using Python and AWS Lambda, ensuring efficient data processing and API interactions.
- Leveraged AWS services including API Gateway and CloudFront for robust hosting, security, and content delivery.

- **Integrated a custom AI solution using Flowise** to enhance user experience, featuring automated meeting scheduling and information retrieval.

EDUCATION

San Diego State University, San Diego, CA

December 2019

Bachelor of Science in Astronomy

Minor in Mathematics

Astrophysics Research Assistant / Advisor, University of Pennsylvania, Philadelphia PA

Summer 2019 - 2020

- Served as an advisor during the summer, **assisting new researchers in setting up their environments and guiding them through initial research phases**, fostering a collaborative and productive research atmosphere
- Conducted research to **improve the quality of astronomical images** by developing methods to better utilize simulated data, resulting in a significant enhancement in image clarity and accuracy

CERTIFICATIONS

- AWS Certified Cloud Practitioner - Amazon Web Services - August 2024 (Valid until August 2027)
- Distributed Computing with Spark SQL - University of California, Davis (via Coursera) - October 2021