Michael Arnold - Software Developer

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EDUCATION

California State Polytechnic University, Pomona   **Graduation:** May 2021
Bachelor of Science, Chemical Engineering   **GPA:** 3.50/4.00
Honors: Cum Laude

EXPERIENCE

Software Developer - Genesis10   November 2021 - Present
- Extended existing REST APIs with Java Spring Boot, applying JUnit and Mockito to develop comprehensive test suites.
- Designed, improved, and normalized SQL schema to reduce tension and support evolving object model requirements.
- Developed browser applications with front-end technologies including React, GSAP, Bootstrap, and SCSS; utilized Fetch API to interface with server-side endpoints.
- Configured and deployed containerized applications and dependencies using Docker and AWS.

Engineering Intern - Elsinore Valley Municipal Water District   July 2020 - July 2021
- Developed a python application to model demands for recycled water, which reduced the need for supplementary potable water by more than 35% during peak season.
- Led a project to automate the analysis of pretreatment metrics as part of a lake health maintenance program, resulting in ERP amendments and fee restructuring which boosted program revenues by more than 15%.
- Built an internal software tool to screen and analyze groundwater field data that improved overall efficiency and extended groundwater blending programs to 4 additional sites.
- Automated reporting with a program that filled and submitted web-forms with existing data stores by using python requests and BeautifulSoup libraries, saving at minimum 100 man-hours per month.

PROJECTS

Zettelkasten (https://gitlab.com/michaelarn0ld/bash-scripts-linux)
- Developed a CLI software that serves as a knowledge management tool and note organizing system using shell scripting, Linux, and GNU utilities.
- Implemented a social feature that utilizes python scripting and Twitter's API to share content as it is created through the Zettelkasten CLI.
- Working to refactor the codebase according to POSIX compliant standards in order to support users working with various shell environments.

SKILLS & INTERESTS
- **Programming Languages:** Java, SQL, JavaScript, HTML/CSS, Shell
- **Frameworks & Libraries:** Java Spring**,** MySQL, React, Bootstrap, SCSS, AWS, Docker
- **Technologies:** Linux, Git

PUBLICATIONS
Author: Arnold, M., Boghosian, B., & Li, M. (2021). Catalytic Production of Diesel-Like Oils From Plastic Wastes.
Journal of Renewable and Sustainable Energy, *13*(6), 064701.
DOI: https://doi.org/10.1063/5.0066218