Elizabeth Johnson

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EDUCATION

Pomona College, B.A. **Computer Science**   **Dec 2023**
Coursework: Machine Learning (Java), Site Reliability (AWS), Cryptography, Data Science (Python), Algorithms, Mobile Development (Kotlin)

SKILLS

Programming Languages: Python, Java, HTML, CSS (Intermediate); Kotlin, C, SQL, YAML (beginner)
Frameworks and Tools: Oracle Cloud, Amazon Web Services, Android Studio, Linux OS, Git, CI/CD

EXPERIENCE

Oracle   **Redwood City, CA**
Cloud Software Engineering Intern   **May 2023 – August 2023**
- Concluded AutoMLx, Oracle's automated ML pipeline, had the top accuracy (< 1-minute runtime constraint) against NeuralProphet, Amazon DeepAR and Facebook Prophet on 24 time series datasets
- Discovered optimal accuracy in a > 1-minute runtime by tuning NeuralProphet's hyperparameters with Optuna, leading to a 20% avg. reduction in symmetric mean absolute percentage error across 24 datasets
- Developed automated script pipelines in YAML for model training, hyperparameter tuning, and result aggregation on configured storage in Oracle Cloud

Associated Students of Pomona College (ASPC)   **Claremont, CA**
Software Developer   **August 2022 – May 2024**
- Deployed backend features of data harvesting, storage, and recommendation algorithm in P-recs project
- used Ruby on Rails to improve ASPC website providing course and professor reviews, dining and housing information, online voting system to 5000+ students at the Claremont Colleges

Autonomous Robotics and Complex Systems (ARCS) Lab   **Claremont, CA**
Research Assistant   **May 2022 – December 2023**
- Configured the standard procedure to serialize/deserialize ML models sent to W&B, an ML experiment tracker, added feature of sending visual figures summarizing model accuracy to W&B
- Increased size of synthetic dataset vital to lab's research by 126x via programmed commands to randomize four simulation parameters in UE5 with open-source software
- Accepted abstract and presented findings to SoCal Robotics Symposium (SCR) at UCLA

PROJECTS

P-recs: A course recommender for 5000+ students
- Developed a search query system tailored for 5000+ students seeking recommendations on new college courses, employing advanced word embeddings and word similarity scoring to enhance the relevance of search results
- Designed standard dataset format and script to translate course data requested from Pomona College API to serialized data format used in backend, allowing for automated updates in course data

Archive-It: An Android app to share art & antique collections
- Created a photo catalog with item-specific information using Jetpack Compose in Kotlin and Google Firebase, allowing hobbyist collectors to document their items by uploading images and item details

Orange-Flickr: A webapp to share photos
- Deployed and scaled legacy Java web app on Tomcat, Postgres, AWS EC2 & ELB to support thousands of clients
- Configured CircleCI for CI/CD, ensuring prompt code review and code patch deployment
- Achieved 98% uptime, led on-call duty with 5 team members for incident management, postmortem assessment

AWARDS

Apple Women in Science and Engineering Mentorship (AWSEM Spring 2024 Cohort)
- Receiving guidance from an Apple employee towards software engineering career pathways

Google CS Research Mentorship Program Recipient (Spring 2023 Cohort)
- Selected to receive mentorship from Google employees towards academic and industry research pathways

California College Media Association (March 2023)
- First Place in Best Newspaper Website Category

US Speed Skating
- 2018 US Olympic Trials – 14th and youngest qualifier nationally, US World Team, 2x US Junior World Team