Kyle Awayan

kyle@awayan.com · (707) 315-4916 · kyleawayan.com · kyleawayan · /in/kyleawayan

Creative student with a passion for programming and digital media. Seeking the opportunity to leverage my skills and experiences to help improve this world, while expanding my knowledge and sharing it with others.

Education

University of California, Merced 2020 - Graduating in 2024
Major: BS Computer Science & Engineering

Benicia High School 2016 - 2020
Diploma

Experience

Undergraduate Student Researcher February 2021 - Present
Cobian-Iñiguez Fire Lab University of California, Merced

- Creating image processing pipelines and tools to collect and analyze data from lab experiments
- Using tools such as OpenCV, scikit-image, Python, PyQt, and MATLAB

Data Scientist/Front-end Engineer Intern/Contractor June 2021 - August 2023
Chan Zuckerberg Biohub San Francisco

- Creating tools for broad sharing of data from various research projects
- Includes creating web portals and interactive visualization tools using React, Dash, Python, and AWS
- Using data libraries such as anndata, scanpy, Microsoft Deep Zoom
- Assisting colleagues with coding questions

Teacher Assistant For Digital Media Class August 2019 - June 2020
Benicia High School Benicia, CA

- Helped students learn how to use camera gear and software (Adobe products)
- Provided feedback on their work

Photographer and Videographer March 2018 - November 2020
Benicia, CA

- Captured special events (e.g.: quinceañeras, anniversaries, weddings)
- Invited photographer or videographer colleagues when needed
- Provided the team with guidelines on what to capture, and welcoming suggestions from them

Awards

Ganbare Scholarship 2020
Benicia High School Panther Band

- The Ganbare (Japanese, meaning to persevere; to do one's best) Scholarship recognized the Senior who has shown the most involvement and dedication in the Benicia High School Panther Band-related activities, is the most willing to make sacrifices of free time for the betterment of the Band Program, and always does his/her best.

Skills

Technologies: Node.js, React, React Native, Google Cloud, Amazon Web Services, Terraform, Docker, PostgreSQL, Neo4j, MongoDB, InfluxDB, Grafana, Arduino, Qt, Adobe Suite, Figma, Ableton Live, grandMA3, Resolume, TouchDesigner, Unreal Engine, Blender
Coding Languages: JavaScript, TypeScript, Python, C++, C, MATLAB, SQL, LaTeX, Swift, R

Other Interests: Music Production, Graphic Design, DJ, VJ, Stage Lighting Design, Music Theory, Skiing, Biking, Aviation, Traveling

Publications

- Jonathan Liu, et al. **Kyle Awayan**, "Concordance of MERFISH spatial transcriptomics with bulk and single-cell RNA sequencing", Life Science Alliance, December 2022
- **The Tabula Microcebus Consortium**, "Tabula Microcebus: A transcriptomic cell atlas of mouse lemur, an emerging primate model organism", bioRxiv, August 2022
- Jeanette Cobian-Iñiguez, Amir Hessam Aminfar, Shusmita Saha, **Kyle Awayan**, et al., "The Transition and Spread of a Chaparral Crown Fire: Insights from Laboratory Scale Wind Tunnel Experiments", Journal of Combustion, July 2022
- **The Tabula Sapiens Consortium**, "The Tabula Sapiens: A multiple-organ, single-cell transcriptomic atlas of humans", Science, May 2022

Selected Passion Projects

BusyMap 2022

Real-time monitoring of dorm study and lounge room occupancy.

- Motivated by the challenge of locating vacant study/lounge rooms in college dorms
- Utilizes Raspberry Pi and Bluetooth for occupancy detection, records to PostgreSQL database
- Online interactive map created with React shows room occupancy in real-time
- Completed for the HackMerced VII Hackathon with three other team members, won "Best Hardware Hack"

vintage-influxdb 2021

Detailed time-series recording of personal Spotify listening data.

- Curious to see my listening habits over time
- Created a Node.js application to periodically ping the Spotify Web API and record to a database
- Using InfluxDB and Grafana, complex queries can be made to analyze and visualize the data

Zuzu 2021

Created a face recognition system to recognize faces in music videos.

- Had trouble learning and remembering names of band members
- Used the face_recognition Python library, powered by dlib and NVIDIA CUDA
- Used a sequential Keras model with TensorFlow for classification
- Used OpenCV to render overlays on the video of the face recognition results

Gemini 2020

A 'now playing' screen for Spotify.

- Created a desktop app that shows a user's currently playing song
- Collaborated with a colleague, took advantage of Git, GitHub, and GitHub Actions
- Used Electron, JavaScript, and the Spotify Web API
- PKCE was implemented to authenticate with the Spotify API
- Has 130+ stars on GitHub

Magic Mirror 2016

A magical mirror that showed various information through the glass.

- Constructed a frame that enclosed a two-way mirror and computer monitor
- Used an open-source Node.js based software for the interface
- Presented it at a local Maker Faire event