ELLIE KUANG

Socials

LinkedIn
Devpost
Github
Medium
Website
YouTube

EDUCATION

University of California, Santa Barbara (UCSB)

** BA in Statistical Science (2014 – 2016)*
** BA in Political Science (2012 – 2014)*

TECHNICAL SKILLS

OOP & Big Data:
*Python *SQL *R *C++ *Fortran *MATLAB *VBA

Web Development:
*React *Flask *Django *JavaScript *HTML *CSS

Deep Learning Frameworks:
*PyTorch *Keras *TensorFlow *RAG

Cloud Platforms:
*AWS *GCP *SageMaker *Vertex AI *Snowflake *Databricks

Production Tools:
*Nuke *Resolve *Adobe Illustrator

Design Tools:
*CATIA *ModelCenter *ParaView *Figma

Others:
*Docker *Kubernetes *Conda *Pip *Git

Conferences/Events:

Speaker at
Google DevFest

Sr. Infrastructure Consultant at Kaiser Permanente (07/2025 – present)

- Building visualization dashboards to monitor and alert status of pods, and cpu/memory usage.
- Building internal tools for researchers and doctors for early detection and tracking of tumors.

Machine Learning Engineer at Walt Disney Studios (11/2021 – 11/2024)
(read more about it here: https://www.shegocodes.com/disney)

- ❖ **Nautilus – Content Classification** (C++, Python, Docker, Kubernetes)
  - Developed a scalable pipeline using Docker containers and Kubernetes orchestration to support post-production efforts for classifying frame quality and dynamic range (HDR-Rec2020, HDR-P3, SDR) using a combination of heuristic methods and ML models.
- ❖ **Auto-Rotoscoping** (Python)
  - Developed an automated rotoscoping tool for post-production workflows that detects and edits 2D/3D characters within frames by leveraging facial recognition and landmarking, voice recognition, and data augmentation.
- ❖ **Disney-Chatbot** (Python, LLM)
  - Developed a chatbot for internal users by fine-tuning Meta's Llama model to provide documentation, support, and knowledge regarding studio applications & databases.
- ❖ **Disney Streaming Recommender Systems** (SQL, Python, XGBoost)
  - Built models using XGBoost and Collaborative Filtering to predict the likelihood of a user watching a new TV show.

Scientific Research Software Developer at Caltech/JPL (01/2020 – 08/2021)
(read more about it here: https://www.shegocodes.com/caltech)

- ❖ **Tumor Detection** (Python, AWS Sagemaker)
  - Leveraged AWS SageMaker to label data, train, and deploy models for detecting and tracking tumor growth in prostate cancer MRI datasets.
- ❖ **Cancer Causing Products Detection** (Python)
  - Built a data pipeline for annotated data collection, experiment validation, and deployment of ML models to detect cancer-causing products in real-time video feeds.

Research Scientist at Lockheed Martin Aeronautics (08/2017 – 01/2020)
(read more about it here: https://www.shegocodes.com/lockheed)

- ❖ **AI for the Maintainer** (Python, VBA)
  - Developed CATIA automation tool using pywin library to extract significant specs from model files to build internal database and to improve delivery forecasting for manufactured parts.
- ❖ **Autonomous Drone Inspection** (Python, C++, YOLO)
  - Fine-tuned YOLO by adding more classes to accurately detect defects pertaining to autonomous drone inspections (aerial, snake, crawler drones) of F-35 aircraft in production and sustainment environments.
- ❖ **Multi-Discipline Optimization** (Python)
  - Developed new methodologies to generate Response Surface Models (RSMs) using a design of experiments & ML algorithms (CNN, Multi-Polyfit).

Apps:

- ❖ **PowerAI** *(https://www.poweraiconsulting.com)*
  - Webapp for data engineers and data scientists to help preprocess and train baseline models in minutes with no code setup.
- ❖ **BellieTime** *(https://www.bellietime.com)*
  - Personalized skincare analysis webapp that leverages computer vision to scan products' ingredients list and returns an overall wellness score with breakdown descriptions and ratings of each detectable ingredient.