CHANG KIM

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EDUCATION

Columbia University   New York, NY
Bachelor of Arts in Computer Science — GPA 3.5 out of 4.0   *Sep 2022 – May 2025*

EXPERIENCE

University of California San Francisco   Jul 2023 - Present
Undergraduate Research Assistant
- Assistant in the Nowakowski lab's computational genomics team with emphasis in data processing and analytics.
- Current project consists of 3D genomic reconstruction of the human brain using deep learning.

United States Navy   Jul 2017 - Aug 2022
Hospital Corpsman
- Provided medical care and rapid transport to refugees during U.S. withdrawal from Afghanistan and during the COVID-19 pandemic.
- Crew Chief of 6 EMT's overseeing the planning and day to day operations, training, and equipment maintenance.

PROJECTS

3D reconstruction of gene expression in the human brain | *Python*   Jun 2024
- Aligned brain tissue slices in a 3d orientation to capture spatial structures and see how they vary across the z-axis. We did this based on two modalities (Gene expressions/ HE slides).
- Trained a DL model that infers genetic data from the HE slides to cut down on costs and increase scalability.

Atlas Storefront | *Angular,GCP,AWS*   Sep 2024
- Tool that users will be able to easily access inventory status, update suppliers, products information, price information, promotion tiers and categories, client accounts information, and purchase history.
- Full stack web application utilizing FASTAPI, MySQL hosted across AWS and GCP

Rule 11 | *Python, HTML*   May 2024
- Website designed to familiarize user with rules and mechanics of soccer in a stylish UI experience.
- Built with HTML/CSS, JavaScript front end with Python/Flask back end.

Keeper App | *MERN*   May 2024
- Website with QR code and blogging functionality.
- Utilizes Mongo databse, React frontend, Node/Express backend.

AI Sign Language Classifier | *Python*   Dec 2023
- Program designed to create, train, and evaluate a Convolutional Neural Network (CNN) model for recognizing sign language gestures.
- Utilizes Scikit learn to split data into training and testing data sets. Uses Keras API to create CNN.

ARMY 355- Leveraging Clinical Data to Optimize Health Outcomes | *Figma*   Dec 2023
- NIH sponsored project where traumatic brain injury researchers needed a tool to ingest raw, unstructured data and output to pre-existing and suggested standardized common data elements.
- Implemented a Figma mockup of a minimum viable product along with subsequent white paper to address problems

Game of Thrones Database API | *MySQL, Python*   Mar 2023
- Designed and constructed a database API for CRUD operations; utilizes FastAPI, SQLAlchemy and MySQL.
- Data used with Game of Thrones staff members pulled from IMDB

FlightDeck | *Unity,C#*   Feb 2023
- VR simulator intended to help junior pilots and aviation staff to familiarize and interact with plane's systems.
- Utilizes Unity, Blender and echo3D, scripts written in C#. Program written for Columbia University DevFest 2023 Hackathon with two other teammates.

TECHNICAL SKILLS

Languages: C ,C# , Unity, Java, BASH, Python, SQL, NoSQL, JavaScript, LaTeX, HTML/CSS, Korean(Fluent), Italian(Conversational)
Technologies: Git, Pandas, MongoDB, NumPy, SciPy, TensorFlow, Flask, React, Node JuPyter, Tensorflow, Keras
Misc: Active Secret security clearance, NREMT Certified, U.S. Citizen