Christopher Kong

Website: https://ckong6953.github.io/ GitHub: https://github.com/ckong6953 LinkedIn: https://www.linkedin.com/in/ckong727/

EDUCATION

University of North Carolina at Chapel Hill (UNC) **Aug. 2018 – May 2022**

B.S. Biochemistry & B.A. Computer Science, Neuroscience Minor

- Honors: Good Standing, Dean's List, Phi Beta Kappa

WORK EXPERIENCE

Pfizer |Automation System Analyst **Apr. 2023 – Current**

- Monitored incoming data using **AVEVA PI System** products to analyze and historize information from equipment connected to **Programmable Logic Controllers (PLCs)**
- Adhered to good manufacturing practices through leading projects and preventative maintenance per Standard Operating Procedures (SOPs)
- Coordinated efforts to increase accessibility and visibility of site-wide metrics

Jin's Hibachi and Chinese | Server/Web Developer **Aug. 2014 – Dec. 2022**

- Developed website using **JavaScript** and **HTML/CSS** per client's request
- Employed as a server previously (4 years)

Louis Round Wilson Library – Special Collections | Student Assistant **Jan. 2019 – May 2020**

- Assisted patrons with retrieval of archival material with **Microsoft Access**

PROJECTS & RESEARCH

Cationic Caged Peptide Design Project | DeGrado Lab (UCSF) **Aug. 2022 – Jan. 2023**

- Designed *de novo* proteins for caged cationic conformations as potential therapeutic agents using *in silico* experimentation for simulating protein folding.
- Determined optimal sequence residues through structure prediction and **machine learning** models: **ColabFold** and **Rosetta Commons**

North Carolina (NC) Air Quality Measurement Report | Course Project **Aug. 2021 – Dec. 2021**

- Presented data narrative to substantiate that NC air pollution has decreased over the years
- Formatted NC air pollution data sourced from the EPA using **R** packages **dplyr, ggplot2, RSocrata,** and **tidyverse** into bar graphs, timelines, and ECDF plots

Drug Delivery Project | Lawrence Lab (UNC) **May. 2021 – Jul. 2022**

- Tested TPA concentration of internally loaded red blood cells using ELISA
- Synthesized various melittin inhibitor analogues and therapeutic oligopeptides
- Quantified peptide fragments using **LC-MS** and **UV-Vis spectroscopy**

Ramses' Rhythm Rally | Course Project **Jan. 2021 – May. 2021**

- Created a rhythm game web application using **JavaScript** and **HTML/CSS**
- Utilized **jQuery** for handling **RESTful API** calls and **AJAX** interactions
- Stored user login information and scores using **NoSQL Firebase**

Virtual Reality Safety Project | Lawrence Lab (UNC) **Aug. 2020 – Jul. 2022**

- Built a virtual environment to teach laboratory safety using the **Unity Web Engine**
- Collaborated with Ghostpunch Games, LLC and UNC Eshelman School of Pharmacy
- Gathered user experience data for article published in Journal Chemical Education (DOI: acs.jchemed.2c00096) under mentorship of Dr. David Lawrence at UNC-CH

SKILLS & INTERESTS

Programming Skills: Bash, MATLAB, Racket/Lisp, SQL/NoSQL, C, Java, MIPS assembly, R (dplyr, ggplot2, RSocrata, tidyverse), PLC ladder logic, AVEVA PI System, HTML/CSS, JavaScript/ES6 (jQuery, AJAX), Python (Biopython, NumPy, OS, pandas, TensorFlow)

Laboratory Skills: FPLC, HPLC, Affinity chromatography, LCMS, Hemocytometer, ^{13}C NMR, Peptide synthesis, Antiseptic techniques, Protein design/expression, UV-VIS spectroscopy, Fluorescence spectroscopy