

KENNETH LOI

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EDUCATION

University of California, Berkeley

Pursuing Bachelor of Arts in Molecular and Cellular Biology

Berkeley, CA

Aug. 2020 – Present

Cocoa Beach Jr./Sr. High School

International Baccalaureate Diploma Program

Cocoa Beach, FL

Aug. 2017 – 2020

SKILLS

Programming Languages: Python, HTML, CSS, SQL, Scheme, R, Julia

Developer Tools: VS Code, Atom, Git, Docker

Molecular Modelling: UCSF Chimera, VMD, NAMD, LAMMPS, AutoDock, AutoDock Vina, Avogadro

Molecular Biology Techniques: gel electrophoresis, plasmid genetic engineering

Libraries: pandas, NumPy, Matplotlib

Frameworks: WordPress

PROJECTS

Protein Binding Conformation | *UCSF Chimera, AutoDock Vina*

January 2019 – March 2020

- International Baccalaureate (IB) Extended Essay: Used molecular docking software to analyze binding energy between amyloid-beta peptides and alpha-2-macroglobulin monomer.
- Explored basic biochemistry and organic chemistry topics through literature and textbooks.
- Taught myself how to use computational chemistry software (i.e. molecular modeling programs) following tutorial documentation.

Scheme Interpreter | *Python, Scheme*

November 2020

- Implemented a Scheme interpreter in python
- Implemented a parser to convert Scheme commands into Python
- Implemented an evaluator to execute the parsed data.

EXPERIENCE

Free Summer Swim Lessons Program

June 2019 – Aug. 2019

Rockledge High School

Rockledge, FL

- Helped launch and lead the program
- Developed exercises to teach fundamentals of swimming
- Designed games to engage novel swimmers

High School Swim Captain

Aug. 2019 – November 2019

Cocoa Beach Jr./Sr. High School

Cocoa Beach, FL

- Varsity Captain (12th grade) and JV Captain (9th grade)
- Gave extra lessons to new swimmers on our team. Spent time before and after practice to provide feedback and tips on how to improve technique and times.
- Built rapport among teammates by investing time to understand individual circumstance and development.

Volunteer – Emergency Department

Aug. 2019 – Feb. 2020

Health First Viera Hospital

Melbourne, FL

- Supported medical staff under a high intensity environment
- Provided general non-medical care for patients in order to free up nurses and doctors to focus on higher priorities

ACCOMPLISHMENTS

Joel Ferrell Memorial Award for Outstanding Sportsmanship

2019

AAU Summer Junior Olympics

99 Ranch Market Scholarship

2016

Southern California Chinese School Association

Piano - Certificate of Merit Level 8

2017

Music Teacher's Association of California (MTAC)