

# ALEXANDER LI

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## OBJECTIVE

- To participate effectively in the team environment, utilize my skillset and experience to develop projects while learning, and to implement new technologies in a meaningful way.

## EDUCATION

- **SEP 2018—MAY 2022**  
**BA IN COMPUTER SCIENCE, RICE UNIVERSITY, 3.7 GPA**
  - Committed to BA in Computer Science
  - Relevant Courses: Advanced Algorithms, Java Program Design, Computer Engineering, Data Science Statistics, Multivariable Calculus, Computer Systems in C, Parallel Programing, Web Design, Object-Oriented Programming

## EXPERIENCE

- **FEB 2020 - CURRENT**  
**RESEARCH AT RICE NEUROENGINEERING INITIATIVE, RICE UNIVERSITY, DR. LUAN'S LAB**
  - Individual Summer Project: with the guidance of a graduate student, I worked on Bayesian neural decoding using deep learning models and the bayesianoptimization package
  - Developed keras model to predict behavioral state of mice based on neuron firing rate, optimized hyperparameters to reach 40% improvement from base model
  - Use machine learning algorithms to identify motifs and decode big biological data

## PROJECTS

- Developed and optimized a deep neural network that was able to predict a mouse's behavioral state based on binned neuron firing rate
- 2020 Rice Datathon Machine Learning Systems 1<sup>st</sup> Place Project – Built a frontend/gui to interact with a machine learning model to predict divorce.
- Developed a genetic algorithm to breed and mutate generations of images based on mathematic functions
- Developed core C library functions from scratch in C: malloc, shell, proxy, linking

## SKILLS

- Technologies – Java, Python, C, Javascript, Matlab, React, HTML/ CSS, LaTeX
- Learning - Energia, Arduino, R
- Fluent in Chinese, learning Japanese
- Passionate about learning new technologies and Software development