

ZIYANG ZHANG

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La Jolla

92122

EDUCATION

BS	Major: Bioengineering Bioinformatics Minor: Cognitive Science specialized in Machine Learning GPA: 3.81	Expected 2021 Gordon Scholar 2019
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SKILLS

• Machine Learning	• Deep Learning	• Python	• Communication
• C++	• R	• Problem Solving	• Statistics
• Critical Thinking	• Excel	• JavaScript	• Data Analysis

RESEARCH EXPERIENCE

Research Intern/ AxBio	1/2020 – 4/2020
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- Developed a novel pipeline for quick identification of sub-strands of viruses in **Python**
- Analyzed sequencing data with NGS libraries for marker and microarray probe discoveries
- Worked effectively in a collaborative environment and presented progress on a weekly basis

Brain Atlas Project assistant/ Laboratory of Gene Regulation	9/2019 - Present
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- Ran and modified pipeline in **R** and **Python** on NGS data to cluster and identify different cell types
- Wrote **R** and **Python** scripts for evaluation and visualization of cluster results
- Designed and wrote website to present data (IGV, UCSC Cell Browser) and findings

Undergrad Researcher/ Ideker Laboratory	6/2019 - 9/2019
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- Used **Python** to process Gene Ontology file with several custom filters and to calculate Resnik distance
- Applied deep learning frameworks to evaluate correlation between SNP and Phenotype
- Contributed to developing an alternative method of evaluating relationship between SNPs and Phenotypes using LSTM from NLP

JOB EXPERIENCE

BEXT-BOAT program TA / Cartilage Tissue Engineering Lab	2019/3 – 4/2019
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- Designed an outreach program for talented high school students interested in bioengineering
- Wrote **MATLAB** script to process data collected during joint laxity testing and generated visualization for better understanding during lectures
- Provided instructions and training on practice of image processing and programming in lab setting

Market Analyst Intern / Meddo Medical Co. Ltd.	6/2018 – 9/2018
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- Communicated with customers to identify strengths and potential improvements of sold products to improve marketing campaign and channel information to engineers
- Prototyped a system in **Python** to document customer report for streamlining maintenance SOP and visualization of metadata to better tailor development agenda for customer demands
- Presented SMART Mattress related products to potential customers at company's booth in an annual conference and in formal meetings

ACTIVITIES

ECE Design Competition co-lead	1/2019 - 6/2019
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- Presented an obstacle-detection solution using TensorFlow for Parkinson's disease patients.
- Communicated with patients and experts to identify potential needs and pitched idea of prototype to judges and patient families
- Coordinated different teams to follow an agreed timeline and participated in data processing

UCSD BioTechathlon 2019 Runner-up	2019/4
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- Presented an immunotherapy solution for Huntington's disease patients by incorporating discoveries in research paper with our team's knowledge in biology, genetics and business
- Designed detailed timeline and coordinated different talents to tackle the problem
- Drafted a business plan for production and marketing that ranked 2nd out of over 20 teams