Nima Mousavi

+1 (858) 291-2083
mousavi@ucsd.edu
http://nmmsv.com

UC San Diego
9500 Gilman Drive
La Jolla, CA, 92093-MC 0639

SUMMARY

Looking for a bioinformatics summer internship position.

EDUCATION

University of California, San Diego, La Jolla, CA — 2015-2020 (Expected)
PhD, Electrical and Computer Engineering — GPA: 3.85
Research: Bioinformatics and Population Genetics

Sharif University of Technology, Tehran, Iran — 2011-2015
BSc, Electrical Engineering — GPA: 3.94

SKILLS

- Solid research and implementation experience in inference models for calling repeat variants using next-generation sequencing data.
- Strong background in software development and object oriented C++ and Python.
- Deep mathematical and probabilistic knowledge and experienced in theoretical problem analysis and statistical methods.
- Profound knowledge of algorithms and demonstrated proficiency in problem solving by deriving creative and innovative solutions.
- Excellent teamwork and communication skills, shown as constructive cooperation with colleagues.

PUBLICATIONS

N. Mousavi, B. Aksanli, A. Akyurek, T. Rosing. Accuracy-Resource Tradeoff for Edge Devices in Internet of Things, *SmartEdge'17, in conjunction with IEEE PerCom'17.*

EXPERIENCE

Genotyping STR Expansions, UC San Diego, La Jolla, CA — Feb 2017 - Ongoing
- Created a novel software tool for accurately genotyping short tandem repeats from aligned short read sequencing data.
- Developed maximum likelihood model based on local realignment of paired-end reads.
- Implemented with object oriented C++ after prototyping with Python.
- Validated using simulated data, and currently testing on whole genome and whole exome datasets.

Context Engine, UC San Diego, La Jolla, CA — May 2016 - Nov 2016
- Developed the object oriented design of a modular middleware for IoT.
- Supervised development of machine learning code and system integration.
- Implemented embedded system interface with local sensors and actuators and cloud-based database.
- Showcased the capability of system using an end-to-end application alongside poster presentation.

Teaching Assistant — Sep 2014 - Mar 2017
Components and Design Techniques for Digital Systems — UC San Diego
Computer Structures and μProcessors Lab (Lead Assistant) — Sharif Univ. of Tech.
Principles of Electrical Engineering — Sharif Univ. of Tech.
- Clarified lecture material for students by holding well-received discussion sessions.
- Communicated with students and provided mentoring and advising.

Volunteer Work, Iranian Student Association, UC San Diego — May 2016 - Present
- Vice President (May 2017-Present), Financial Director (May 2016-May 2017)
- Collaborated with university officials, other board members, and volunteers in holding events with upwards to 300 attendance from the community.

RELEVANT COURSEWORK

- Population Genetics
- Algorithm Design
- Object Oriented Programming
- Princip. of AI: Prob. Reasoning
- Machine Learning
- Statistical Learning