PARISA GOLKAR

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**EDUCATION**

**UC RIVERSIDE**

**BACHELOR OF SCIENCE**|**BIOENGINEERING** JUNE 2021

**Related Coursework:** Tissue Engineering, Engineering Circuit Analysis,Statistical Quality Control, Quantitative Biochemistry, Organic Chemistry, Biomechanics,Manufacturing Processes, Probability & Statistics for SCI & ENGR, Biotechnology and Molecular Engineering, Circulation Physiology, Biomaterials, Bioinstrumentation, Biosystems,Process improvement strategies,CAD systems,Knowledgeable of quality control standards follow to ISO9000

**LEADERSHIP & ENGINEERING & INTERNSHIP EXPERIENCE**

**RESEARCH INTERN** |**UC RIVERSIDE** DEC 2020-PRESENT

* large-scale simulations of emerging genome editing technologies and CRISPR systems applying computational methods
* Develops cryo-EM refinement methods based on high-level quantum mechanical simulations and free energy methods

**Alerting Acoustic detecting Helmet Project Manager**|**UC RIVERSIDE** SEP 2020-PRESENT

* Project management Works on a cross-functional project team through all phases of the product development process, Works collaboratively with internal and external teams to ensure successful project outcomes
* Lean manufacturing, Plans, organizes, and directs the completion of the project while ensuring the project’s on time, on budget, and within scope
* Problem solving and 3D Designs the the dual responsive system of the device prototype
* Performs verification and validation experiments & statistical testing
* Investigates the regulatory requirements for the proposed device under the FDA draft guidance, and overseeing product trials and regulatory inspections
* Extracts vehicle sounds from traffic using Machine Learning: Convolutional Neural Network,and obtain the characteristic profile of audio waveforms

**CONTROL THEORY MODEL OF TAH Lead Engineer student** |**UC RIVERSIDE** JAN 2020-APR 2020

* Simulates Total artificial heart control system using COMSOL and applying all the parameters to mimic the functional aspects of the TAH
* Designs experiment, Analyzing data, compiling, documenting and communicating test results to the broader team

**CIRCULATION PHYSIOLOGY PROJECT DESIGN**|**UC RIVERSIDE** JAN 2020-MAR 2020

* Leads the team to simulate the Cerebrospinal Fluid Flow in the cranial cavity
* Models Aqueduct of Sylvius on COMSOL, and SOLIDWORKS

**Interventional Cardiologist Shadowing**|**TEHRAN HEART CENTER, IRAN** MAY 2020-SEP 2020

* Develops an insight into the field of Cardiac Catheterization and identified most efficient solutions to complex engineering problems
* Gains clinical experience through interacting with patients, engaging in diagnoses, working in Cath Lab

**BIOMECHANICS PROJECT DESIGN Test Engineer** |**UC RIVERSIDE** SEP 2019-DEC 2019

* Tests all aspects of the system like function/component, system, performance and the stress applied to carbon fiber running specific prosthetics with FEM
* Design the 3D prosthetic using COMSOL & conduct calculations to apply all material properties
* Performs pilot testing to determine the validity of the design through the manufacturing process, report out and design review and validation

**QUALITY ENGINEER INTERN** |**PASARGAD IRANIAN Ink, IRAN**  JUN 2019-AUG 2019

* Assists Quality Engineer management & other functional managers to implement and develop process & product improvements
* Design and implementation of automated tests which reduced testing time by 30%

**RESEARCH INTERN**|**NANO ALVAND PHARMACEUTICALS** JUN 2018-AUG 2018

* Develops assays for the quantification of oligonucleotides in biological matrices
* Designs protocols and analyzed assay data & Utilized instruments to measure fluorescence of oligonucleotides

**RESEARCH INTERN**|**ACECR-SHARIF BRANCH** JUN 2017-AUG 2017

* Tests derivatives of ascorbic acid for their ability to inhibit glycolytic enzymes
* Prepares buffers and assays to measure enzyme inhibition & Analyzed absorbance of enzyme activity and provided weekly data

**SKILLS**

* **SOFTWARE:** SOLIDWORKS,COMSOL, MATLAB, C++, P-SPICE, Benchling,CRISPR,SPC,Six Sigma,MS Office,MS Office Project,LINUX OS,Python,Mini-Tab
* **LABORATORY:** Cell culture, Thin layer chromatography, C-13 NMR, 1H NMR, IR, Mass spectroscopy, ELISA,Western Blot,PCR,Gel electrophoresis,Flow cytometry,Mass spectroscopy,CGMP,High-Performance Liquid Chromatography,Root cause analysis,PCB