Adam Li

Permanent Address:
5309 Via Capote, Thousand Oaks, CA, 91320
(805) 807-5898
Adam2392@gmail.com

Campus Address:
University of California San Diego, Bioengineering Department
9500 Gilman Drive, La Jolla, CA, 92093
adl013@ucsd.edu
Web Address: www.linkedin.com/in/adamli2392/

EDUCATION:

UNIVERSITY OF CALIFORNIA, SAN DIEGO
Bachelor of Science: Bioengineering
Bachelor of Science: Mathematics-Applied Science
Major GPA:3.72/4.0 GPA

YALE SCHOOL OF MANAGEMENT
Global Pre-MBA Leadership Program: Selective Leadership Program (~5% acceptance rate) 2014
Placed 3rd in Audubon Business Concept Pitch Plan, and 2nd in Audience Choice Award

COURSEWORK:

- Mammalian Physiology
- Bioinstrumentation
- Linear Circuits
- Computational Methods in Engineering
- Engineering Graphics & Design
- Continuum Mechanics
- Biomechanics
- Applied Linear Algebra
- Independent Research in Tissue Engineering
- Biomaterials Engineering
- Matlab & SolidWorks Design
- Fluid Mechanics
- Biomedical Imaging
- Mathematical Statistics & Probability
- Experimental Techniques in Circuitry and Heat Transfer
- Mass Transfer
- Thermodynamics
- Statics & Dynamics
- Advanced Data Structures
- Biosystems and Control

RESEARCH EXPERIENCE:

NEURAL INTERACTION LABORATORY : BIOMETRICS ANALYTICS Sept 2013 – Present
Senior Engineer/Researcher under Dr. Coleman and Dr. Litvan La Jolla, CA

- Researching and developing novel ways to evaluate Parkinson's Disease using gait and 3D spatiotemporal data in collaboration with UCSD Jacobs School of Engineering and School of Medicine.
- Co-founded a project to develop a Parkinson's disease tracking software product using C++, C#, Matlab to create data acquisition and analysis algorithms using Microsoft Kinect
- Wrote a successful Health and Life Sciences grant for $10,000 and an IRB for carrying out pilot clinical study, as well as received the Gordon Fellowship Award for outstanding engineering leadership
- Leading a startup team of five to analyze potential business models and create presentations that outline customer interviews, potential IP strategy and value proposition through the NSF I-Corps Program
- Co-founder of startup concept with a potential market of ~$20B; was later accepted into the Von Liebig National Science Foundation I-Corps as well as the NCIIA E-Team Program (~15% acceptance rate)

- Mentoring a senior Bioengineering team within the Bioengineering design course to address engineering challenges in monitoring and analyzing Parkinson's (plan on developing plan to incorporate neck EMG)

ENGINEERING WORLD HEALTH Sept 2012 – Present

Project Team Leader for PCR under Dr. David M Smith La Jolla, CA

- Collaborate with UCSD School of Medicine and a clinic in Mozambique to develop a rapid, cost-effective diagnostic device for detecting drug resistance in HIV patient, which culminated in 2nd place for the EWH National Design Competition
- Led a team of 5 for the product development of a PCR, from an Arduino microcontroller with PWM current delivery using a PID algorithm for temperature control (programmed in C)
- Advising a team of 10 in product development, while managing a budget of over $10,000. Responsible for setting the product strategy that resulted in a successful prototype that has a 95% cost-savings

QUALCOMM INSTITUTE June 2012 – Sept 2012

Summer Research Scholar under Calit2 La Jolla, CA

- Was accepted to be a part of a 30 person cohort in order to conduct ~40+ hrs/week of independent research for the purpose of improving quality of life using emerging technologies and analytics
- Conducted experiments using a LabView programmed mechanical actuator to compress agarose hydrogels with embedded radiopaque particles, while imaging with 3D microCT; this tested initial feasibility
- Developed an Excel analysis method with 90% accuracy to measure tissue biomechanics and statistical variance using quantitative statistical analysis, which resulted in streamlined data analysis

CARTILAGE TISSUE ENGINEERING LABORATORY Sept 2011 – June 2013

Undergraduate Researcher under Dr. Robert L Sah La Jolla, CA

- Conducted pilot studies in tissue engineering with micro computed tomography to test hypotheses in orthopedic healthcare, using literature research and image data analysis to drive conclusions
- Created standard operating procedures for inventory processing, laboratory operations, sample preparation, data mining methods and data analysis of CT images that reduced training time
- Analyzed images using Excel, Matlab, DataViewer and CT Analyzer and then documented experimental results through scientific reports, and translate literature findings to research proposals
- Contributed to a large human cartilage research project by scanning ~20 samples over the course of an entire weekend for ~72 hrs

INDUSTRY EXPERIENCE:

GENENTECH INC. July 2013 – June 2014

Process Development Engineering Intern and College Ambassador under Domenic Schmizzi San Francisco, CA

- Collaborated with Genentech College Programs to improve online engagement by ~60%, while coordinating events with directors and human resources that drew in over 200 attendees
- Implemented a new batch control process using Rockwell Automation and PLCs to replace data server management, which results in reducing the purification plant's down-time and poor system performance
- Developed program design iterations to incorporate SMART goals, object-oriented programming, modular control architecture, and HMI system for running purification processes (used SFC, SQL, Structured Text)

RAINBOW TRANSGENIC FLIES INC. July 2011 – Sept 2011

Lab Assistant Intern under Ms. Hong Yu Camarillo, CA

- Used a modified QIA filter plasmid Midi Kit, performed ethanol DNA precipitation using spectrophotometry for quality assurance; performed cell culture of E.Coli

- Elute pure DNA using affinity chromatography for DNA microinjections into larvae; set up genetic crosses, screens of transgenic flies, and performed DNA microinjections into larvae using Standard Electron Microscope

ADDITIONAL EXPERIENCE:

RGB Capital LLC. Feb 2013 – May 2014
Investment Management Intern under Rob Bernstein La Jolla, CA

- Assisted the CEO in building excel models for a $50M fund, focused on managing and minimizing day-to-day volatility for clients
- Created and optimized ETF and Mutual fund screeners using Visual Basic to program macros that automate screening process

UCSD STUDENT FOUNDATION INVESTMENT COMMITTEE Sept 2013 – Present
Associate and CFA Support Researcher La Jolla, CA

- Generating buy-side equity research reports for $450,000 student endowment fund, producing yearly return rates of ~6%
- Effectively analyzed companies with a bottom-up approach, using discounted cash flow, company comparable, and precedent transaction analysis

ALPHA KAPPA PSI April 2012 – June 2014
Class *President and Director of Consulting under Professor Delbert Foit Jr.* La Jolla, CA

- Led the strategic vision and daily operations for a team of 15 over 6 weeks to raise $5,000; also completed a market research project on Facebook Inc. and 100K business plan proposal for a social media startup
- Spearheaded a team of four to compete in the PBLI Case Competition of 2013, where the company strategy, financials of mobile advertising, and operational risks of Facebook Inc. were analyzed

INTERNATIONAL SOCIETY FOR PHARMACEUTICAL ENGINEERING Sept 2011 – June 2014
Vice President External under Professor Melissa Micou San Diego, CA

- Set the strategy and operational goals with a team of 25, while maintaining an ~$5,000 budget; won Chapter of the Year against all national chapters for two consecutive years
- Led a series of 12 workshops for leadership development and implemented a mentorship program for students to connect with over 30 industry professionals, which was emulated by the national chapter of ISPE's program
- Managed the Leadership Rotational team of 10 students and the operations of various company info sessions and tours that drew in over 200 students for biotech companies including: Genentech, Life Technologies, Baxter, and Illumina

HONORS/AWARDS:

NCIIA E-Team Program – National selective program (~15% acceptance rate) for funding 06/2014
UCSD Sixth College Leadership Award – Finalist For Outstanding Leadership 05/2014
ASAIO – Student Design Competition Top 27 In Nation 05/2014
Tau Beta Pi – Engineering honor society 2014
Gordon Fellow – Engineering leadership excellence award 2014
Von Liebig NSF I-Corps Fellow – Competitive startup program for NSF seed funding 2013
Gordon Leadership Scholar – Competitive leadership program 2013
California Institute of Technology – Competitive Summer Research Grant 2012
Provosts Honors – Obtaining a term GPA greater than 3.5 2011-2014
National AP Scholar – Obtained 4, or higher on 12 AP tests 2010

PRESENTATIONS/CONFERENCES:

NSF Center for Science of Information 08/2014

Yale SOM Audubon Business Concept Pitch 06/2014

- *Project*: GreenHaven 501© Non-Profit Business Pitch

Bioengineering Day Poster Presentation 04/2014

- *Project*: The Gait Analysis of Parkinson's Disease

Von Liebig NSF I-Corps Phase I Pitch 03/2013

- *Project*: BioMetrics Analytics

ISPE Poster Presentation 06/2013

- *Project*: Feasibility of 3D Deformation and Strain Analyses by Micro-Computed Tomography

Qualcomm Institute Summer Research Scholar Poster Presentation 09/2012

- *Project*: Feasibility of 3D Deformation and Strain Analyses by Micro-Computed Tomography

ADDITIONAL SKILLS:

CERTIFICATIONS:

- Research Aspects of HIPAA - (06/30/2014)
- Collaborative Institutional Training Initiative (CITI) Biomedical Research - (06/30/2014)

LABORATORY:

- Knowledgeable about HPLC, Microfluidics, Ethanol Precipitation, Buffer/Reagent Preparation, AFM, Optical Microscopy, Hydrogel Polymerization

- PCR
- Computed Tomography
- SEM
- Laser Microscopy
- Rainin Pipettes
- Mechanical Testing
- Clean Room
- Tissue/Cell Culture

SOFTWARE/OTHER:

- Knowledgeable about Object-Oriented Programming, Entrepreneurship, Project Management in Agile and Iterative, IP Strategy, Market Research, Financial Modeling, Equity Research
- Proficient with MS Word, PowerPoint and Excel; Web Design and Data Analysis
- Skilled in C, C++, Python, Java, JavaScript, SQL, HTML, R, MATLAB, LabView, Finite Element Analysis/Modeling, SolidWorks, MS Visual Studio, Structured Text, SFC
- Fluent in English and Chinese