**Adam Li**

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**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 | * Continuum Mechanics | * Matlab & SolidWorks Design | * Mass Transfer |
| * Bioinstrumentation | * Biomechanics | * Fluid Mechanics | * Thermodynamics |
| * Linear Circuits | * Applied Linear Algebra | * Biomedical Imaging | * Statics & Dynamics |
| * Computational Methods in Engineering | * Independent Research in Tissue Engineering | * Mathematical Statistics & Probability | * Advanced Data Structures |
| * Engineering Graphics & Design | * Biomaterials Engineering | * Experimental Techniques in Circuitry and Heat Transfer | * 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** Sept2012 – 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**  Sept2011 – 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 Nation05/2014

**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:**

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

* Knowledgeable about HPLC, Microfluidics, Ethanol Precipitation, Buffer/Reagent Preparation, AFM, Optical

Microscopy, Hydrogel Polymerization

**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, Excel and MS Visual Studio
* Skilled in C, C++, Python, Java, R, MATLAB
* Adept in Finite Element Analysis/Modeling, SolidWorks/CAD Design, LabView and Structured Text
* Knowledgeable about basic web design and data analysis using HTML, CSS, PHP, MySQL, Ruby, Rails and JavaScript
* Basic understanding of C#, XAML, multi-threading and file I/O
* Fluent in English and Chinese