Next Generation Sustain-a-Coop

A proposal prepared by

GREEN FARM ENGINEERING

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for

Ron Foster

Foster Farms
P.O. Box 52
Kelso, WA 98626

November 1, 2010

Green Farm Engineering
University of Washington
Seattle, WA 98195

November 1, 2010

Ron Foster
CEO
Foster Farms
P.O. Box 52
Kelso, WA 98626

Dear Ron Foster:

Chicken coops presently consume a lot of energy in its heating and cooling systems. Our solution is to implement efficient energy technologies in chicken coop facilities. We will research renewable energy technologies to replace some of your energy inputs. We will also look for ways to improve your energy conservation, such as better insulation and ventilation.

After our initial assessment, we will propose the most optimal solution to energy savings given the constraints of the site. The solution we present will be based on costs, savings, and the green or environmental value of the proposed changes.

If our proposal is accepted, we will start working with your company to plan the best methods and a timeline to implement our solution. After our plan is implemented by our top engineers, we will complete an evaluation so measure your exact savings. In order to make sure that you are getting the most out of our changes we will be available to do yearly inspections of your energy usage.

Sincerely,

GREEN FARM ENGINEERING
Tyler Beauchamp
Adrian Chu
Andrew Liu
Channy Lim
Elisha Ngo

CONTENTS

ILLUSTRATIONS

TABLES **Page**

EXECUTIVE SUMMARY

At present, chicken coops consume a lot of energy in its heating and cooling systems. Installing renewable energy technologies will stabilize energy costs and reduce risks associated with the volatile commodity pricing for energy sources. Based on the Request for Proposal, total energy costs increased from $10 million to more than $20 million for the fiscal year of 2008 at the main facility, while the energy usage stayed the same.

Our solution to this problem is to implement energy efficient technologies to the chicken coop facilities. After our initial assessment, we will propose the most optimal solution to energy savings given the constraints of the site. Renewable energy sources that will be investigated include biomass, photovoltaic solar panels, and wind energy sources. In addition, the farm can apply for renewable energy tax credits that will create an additional source of income. Furthermore, we will assist you in the application of subsidized loans from the government at a federal, state or local level.

Renewable energy sources provide stability and reduce risk for your company's long range strategic plan. Our total consulting fees is estimated to be $60,000 for this six-week long project. By implementing renewable energy technologies, we will be able to provide your company with approximately 70 percent cost savings and an estimated internal rate of return of 50 percent.

NEXT GENERATION SUSTAIN-A-COOP

Introduction: The Challenge

Consider the present. Chicken coops are currently inefficient and are polluting the environment. During times of cold climate, poultry farmers must provide chickens with a heated living environment in order to survive. Likewise, the environment of the chickens must be ventilated in times of hot climate because of the heat generated by the chickens. The heating and ventilation of these chicken coops consume a lot of valuable energy.

Energy is one of the major costs in agriculture industry. Because of the high cost of energy and the difficulty to supply energy to rural areas, many farmers are earning less net profits than before. Self-generated energy and energy saving technologies are solutions for many farms in the United States. As the prices of fossil fuels become more expensive, and as the energy need for humans is increasing, developing renewable energy for the agriculture industry is desired.

In today's economy, fossil fuels are becoming more and more expensive. In 2008, crude oil cost grew to over $150 per barrel. Additionally, propane cost grew to over $2.00 per gallon. It was, and still is, a nightmare to many farm owners because of their dependence on fossil fuels. Many farmers have been looking for alternative energy sources to run their farms.

Scarcity is also a major issue. BP's recent report, Statistical Review of World Energy, states that current crude oil reserves will only last for another 40 years. Natural gas reserves will only last an additional 60.8 years (BP 2010). Thus, unless a new source or alternative to these fossil fuels is discovered, the world will run out of energy.

Our solution to this problem is the" Next Generation Sustain-a-Coop." This is our core competency. We target small and midscale poultry farms in the United States to convert to renewable energy sources. We will begin with retrofit installations and then later integrate our technology with prefabricated new construction. Our first package is for retrofitting existing chicken coops with renewable energy sources including the following: wind turbines, photovoltaic cells (solar panels), as well as technology for turning manure info biofuels. Each of these three technologies is readily available in the open market, but the integration of these devices has not been seen before. We will purchase these technologies from independent manufacturers. Construction of each component will be handled by specialty subcontractors. The second stage includes adding construction of prefabricated metal chicken coops that use our Sustain-a-Coop energy system.

OUR COMPANY: Green Farm Engineering

Our Team from Green Farm Engineering is a young and environmentally motivated group of engineers. Together, we have helped small local farming companies join the Green revolution.
Now, we are interested in helping industry leading farming companies like Foster Farms join the Green revolution. We want to save the future of your company and have a larger positive impact on the environment. To guarantee the quality and accuracy of our plan, we work closely with other more experienced engineers and consultants from within our company who now focus on implementing our energy and money saving plans.

We have the experience and resources you need to find the most economical solutions in today's and the future's energy market. Green Farm Engineering has helped many large farming companies like your selves go green and save green. Give us the chance to help you too.

OUR TEAM

TYLER BEAUCHAMP is a third year undergraduate in the Department of Computer Engineering at the University of Washington. He has worked for a research group on campus for the past year, and has helped to publish some of the study's results. His professional experiences began in customer service and safety. His leadership experience started through Boy Scouts where he became an Eagle Scout. At GREEN FARM ENGINEERING, he is the project leader who keeps the team on track, working together, and working efficiently. He also is a researcher, specializing in any computer or electronic systems.

ADRIAN CHU is a third year undergraduate in the Department of Electrical Engineering at the University of Washington, specializing in the design of Sensors and Devices with an emphasis on renewable energy applications. His professional experiences began in the retail industry and later moved into management of real estate development and trading companies. Most recently, his career has progressed into engineering work with Boeing Commercial Airplanes and technology commercialization work with the UW Center for Commercialization. Furthermore, he is an active participant in various startup-focused organizations in the Northwest, including the Science and Engineering Business Association and Keiretsu Forum. At GREEN FARM ENGINEERING, he is the site / location analyst responsible for project leadership, business development and strategic planning.

ANDREW LIU is a third year undergraduate in the Department of Electrical Engineering at the University of Washington, specializing in embedded computer systems and sustainable electric energy. His professional experience began in the retail and insurance industries before joining GREEN FARM ENGINEERING. At GREEN FARM ENGINEERING, he is a researcher and our energy sources specialist.

SUNGCHAN LIM is a senior year undergraduate in the Department of Electrical Engineering at the University of Washington, specializing in medical instrumentation. At GREEN FARM ENGINEERING, he is a researcher and our insulation and ventilation design specialist.

ELISHA NGO is a fifth year undergraduate at the University of Washington, earning a double degree in Chemical Engineering and Paper Science Engineering. Her past experiences dealt with process optimization, as well as cost optimization at several different paper mills, including Georgia-Pacific. At GREEN FARM ENGINEERING, she is the lead financial analyst and a researcher.

For a complete detailed work history of our team members, please refer to Appendix 3 for the resume of each member.

STATEMENT OF WORK

Our team will be responsible for assessing the company's current energy usage, researching possible renewable energy sources for the farm, and presenting the most cost efficient and the most optimal energy solution that will be tailored to the company's energy needs. The proposed project is divided into several different stages that will lead us to the best solution(s) for increasing both your sustainably and efficiency.

The first step will be assessing your current energy usage and efficiency. Next we will compare your operation to the industry standards and develop solutions for you to implement these standards. Then we find alternative energy solutions, and research types of insulation and ventilation that can be applied to your chicken coops. Finally, we will look at alternative sites for possible relocation, or future expansion, and then come up with an optimal solution that considers cost effectiveness and energy efficiency.

Stage 1

Initial Assessment

From our past experience working on various projects, we have found that performing an initial assessment at the beginning of a project is one of the key steps in any successful project. The goal of our initial assessment will be to identify both the strengths and weaknesses of your current operation. We will look at things such as your energy usage, energy sources, biomass generation, building insulation, and building ventilation. We will then compare these results to the size and scale of your operation and to your competitors. This data will allow us to identify your operation's biggest sources of energy usage and largest inefficiencies. Identifying your operation's largest sources of energy usage and inefficiencies allows us to design the rest of our project around your biggest issues.

Stage 2

Industry Standard Solutions

The next step in our project is to research the implementation of industry standards to your coop for the renewable energy resources. In order for your company to be competitive in the chicken industry, the solutions that will be developed will need to follow the industry standards that your competitors are using.

Energy Solutions

After ensuring your operations are meeting industry standards for efficiency and sustainability, we want to increase your sustainability and energy efficiency above those of your competitors. One of the major ways we plan on doing this is by implementing alternative energy solutions. We want to research various alternative energy solutions such as wind, solar cells, and biomass. Then we will research which of the solutions will provide the most benefit to company based on the location and layout of your coops. By implementing alternative energy solutions into your operation, we hope to increase your sustainability and efficiency above your competitors.

Stage 3

Insulation and Ventilation

Both insulation and ventilation play an important role when building a chicken coop. This is because those two facilities directly affect health of chickens thus outcome of the poultry. It was found that insulation in winter is critical for the growth of young chicks and the eggs production rate. Proper ventilation in summer avoids spread of epidemic among chickens. Therefore, both insulation and ventilation will always be carefully considered for a chicken coop.

Alternative Site Selection

In some occasions, the moving cost of the chicken coops turn out to be less than that of renovation of the existing chicken coop facility. In this case relocation is profitable than renovation.

Stage 4

Cost Efficiency Study and Optimal Solution

Cost and efficiency studies in each area will be carefully conducted. As a result, the optimal solution will be extracted from our studies and research. This solution will then be presented to the company as the best energy solution for the farm.

Time Line

This project is based on a six week time period, and will be broken down into four phases.

Phase I is the "Assessment Phase", where there will be a review of the farm's current energy usage, an on-site inspection that will aid in finding new relocation sites, and a final analysis of what can be changed to use sustainable (and renewable) energy resources. This phase is organized to be a two week period.

Once Phase I is complete, Phase II can begin. This stage will be a two week period dedicated to researching possible renewable energy sources that are viable for the farm to use. The first half of this phase will focus on researching current solutions that are being used by other farm facilities. At the same time, a further analysis of integrating renewable resources into the farm will be researched. Energy efficiency (dealing with heat insulation and ventilation) will also be research in the second half of this time period. Once the main possible solutions that can be implemented currently are researched and developed, future and/or alternative solutions will be researched for possible implementation in the future.

Phase III will be a cost effective study, and will take about one week to complete. Here, each of the solutions that were presented in Phase II will be analyzed for cost benefits. This will allow for a cost analysis of energy savings versus an initial investment for all solutions. The final findings of this phase will aid in the final stage of the project.

Phase IV deals with choosing a final sustainable strategy for the farm. GREEN FARM ENGINEERING will determine the best and most viable solution that meets the needs of the farm's energy requirements, all the while using renewable energy sources.

To keep the farm in time with the project, the following time line has been created.

Table 1. Project Time Line

Project Timeline							
		WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6
Phase	Assigned To	1-Nov	8-Nov	15-Nov	22-Nov	29-Nov	6-Dec
PHASE I: Assessment	All						
PHASE II: Research	All						
PHASE III: Cost Analysis	All						
PHASE IV: Optimal Solution	All						

Note: For a more detailed time line, please refer to Appendix 1.

Periodically throughout the six week period, there will be set dates when GREEN FARM ENGINEERING will give certain deliverables to ensure the farm of the progress that is being done. These dates are as follows:

Table 2. Deliverable Dates

Deliverable	Date
Written Proposal	November 1, 2010
White Board Talk	November 10, 2010
Memo	November 17, 2010
Poster Draft	December 1, 2010
Poster Pitch	December 6, 2010
Poster Presentation	December 8, 2010

Note: For a more detailed outline of the deliverables, please refer to Appendix 1.

Consulting Fees

It is estimated that each team member will work 20 hours per week. The charge for our services is $100 per hour. The initial estimate of this project is projected to be $60,000. The breakdown of this price can be seen below:

$$5\,people \times 20\,\frac{hours}{week} \times 6\,weeks = 600\,total\,hours$$

$$600\,hours \times \frac{\$100}{hour} = \$60{,}000\,total$$

Note: For more detail on the applied fees, please refer to Appendix 2.

Past Case Study: ABC Farms

Challenge:

Our client, ABC Farms retained us to assess, design and implement a renewable energy power and heating system for their headquarters in Monroe, Washington. Their heating and electric bills exceeded over $20 million each year.

Solution:

We assessed their farm and chose to implement biomass heating to replace propane, photovoltaic solar panels to supplement electricity from the local utility and assist our client in applying for Renewable Energy Credits to be sold in the secondary market.

Result:

Earlier this year, we implemented a similar application with ABC Farms. Their initial Investment was $150,000,000 (10% down, 90% on interest free loan from Federal Government, monthly payment $625,000). As a result, our client achieved the following savings, which is a 75% reduction in energy cost.

Annual Savings:

Biomass replaces existing Propane Heating $13,000,000

Photovoltaic replaces existing Electricity use: $1,650,000

Renewable energy credits $350,000

Total Annual Savings: $15,000,000

The total return on investment (ROI) was $7,500,000 per year, with a 50% annual ROI after debt service.

SUMMARY AND CONCLUSION

Through this project your company will save significant amount of cost maintaining the chicken coop. This will leads competitiveness of your company thus eventually maximize the profit.

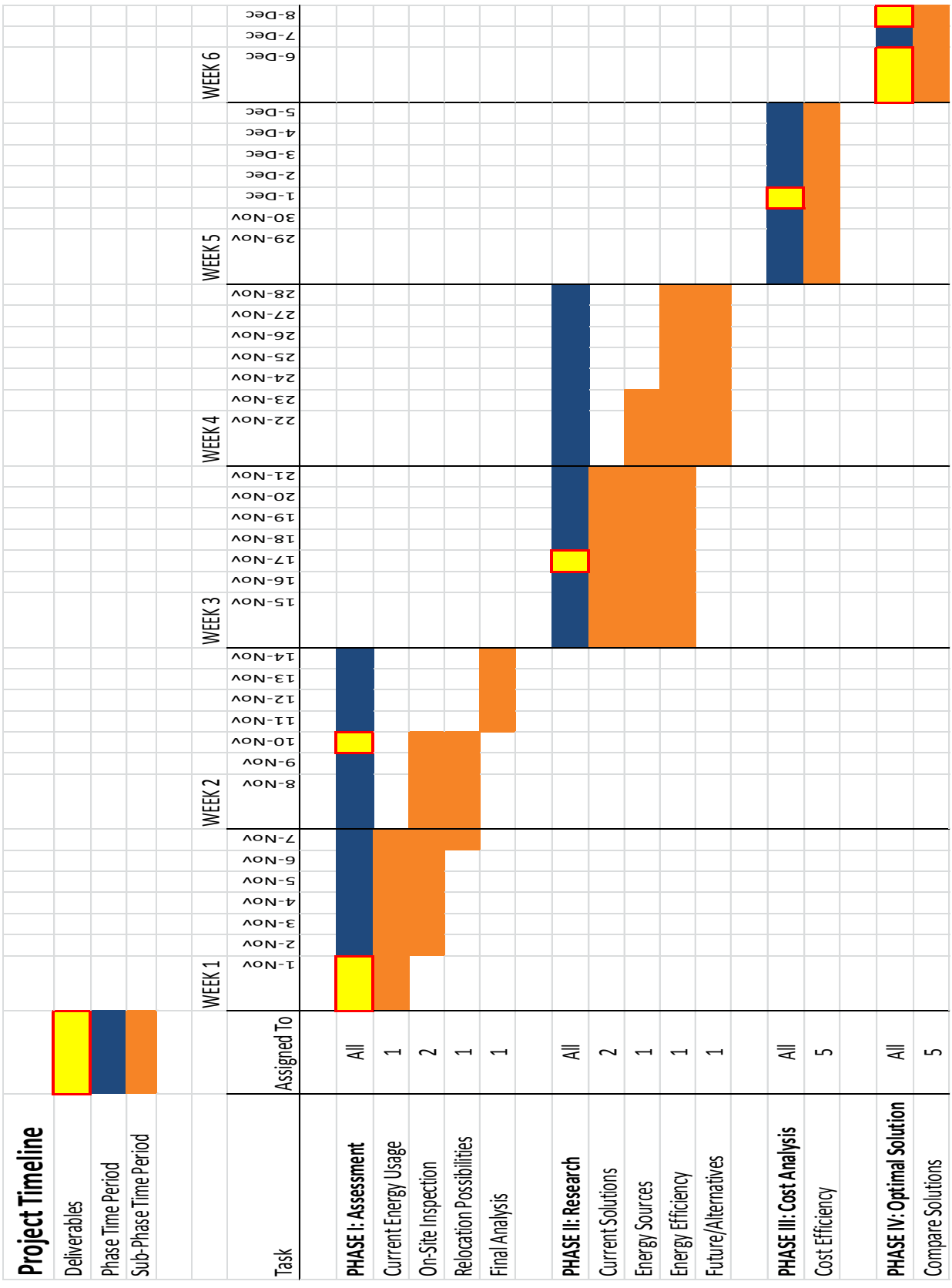
The project approaches include but not limited to the following stages. We will assess the current chicken coop facilities then investigate standard industry solutions that can be possibly implemented. Studies on renewable resources including biomass, photovoltaic solar panels, and wind energy will be carefully conducted. Studies on current ventilation and insulation facility will be carried out. In addition relocation of the current facilities will also be concerned. After completion of the researches we will provide the best possible solution for your sustainable chicken coop.

Our team has successfully implemented many renewable farm projects and helped our clients save huge amount of cost as the result of the project without much burden of initial investment. Upon the acceptance of our proposal each of our experienced and dedicated team member promise to work closely with your company ensuring maximized satisfaction of your needs.

APPENDICES

1. Detailed Time Line
2. Detailed Consulting Fees
3. Team Member Resumes

APPENDIX 1: Detailed Time Line



APPENDIX 2: Detailed Consulting Fees

Consulting Fees

Task	Project Timeline (weeks)	Assigned To	Total Hours	Cost ($100/hour)
PHASE I: Assessment	**2**	**5**	**200**	**$ 20,000**
Current Energy Usage		1	20	2000
On-Site Inspection		2	40	4000
Relocation Possibilities		1	20	2000
Final Analysis		1	20	2000
PHASE II: Research	**2**	**5**	**100**	**$ 20,000**
Current Solutions		2	40	4000
Energy Sources		1	20	2000
Energy Efficiency		1	20	2000
Future/Alternatives		1	20	2000
PHASE III: Cost Analysis	**1**	**5**	**100**	**$ 10,000**
Cost Efficiency		5	100	10000
PHASE IV: Optimal Solution	**1**	**5**	**100**	**$ 10,000**
Compare Solutions		5	100	10000
Total	-	-	**600**	**$ 60,000**

APPENDIX 3: Resumes

Tyler Cedric Beauchamp

Education

University of Washington, Seattle, WA
MAJOR: Computer Engineering
Expected Graduation Date: June 2012
GPA: 3.56
Major GPA: 3.7

High School: Hockinson (Brush Prairie, WA)

Relevant Coursework

- Computer Science and Engineering (CSE)
  - Web Programming
  - Foundations I
- Introduction to Electrical Engineering
- Calculus, Matrix Algebra, and Differential Equations
- Probability and Statistics for Engineers
- Physics: Mechanics, Electricity, Magnetism, and Waves
- General Chemistry I
- Adv. Technical Communication and Oral Presentations

Skills

- Experienced with Computers: **Unix/Linux, Macintosh, and Windows** systems.
- Proficient with **Internet based systems** and **Microsoft Office Suite**
- Programming experience with **Java, MATLAB, and basic Python**.
- Designed websites using **HTML, CSS, PHP, JavaScript, Ajax, SQL** and some **Rails**.
- Experience with **Solid Works**, **research experimentation processes**, and in a **wood and metal shop**.
- Adequate in **Spanish** (3 years in High School) and fluent in **English**.

Experience

- **Paid Research Assistant (Fall 09 – Ongoing)**: Non-Linear Dynamics and Control Laboratory under Professor Kristi Morgansen-Hill in the Aeronautics and Astronautics department of the UW
  - Software: write C++ control algorithms for autonomous robots
  - Hardware maintenance and redesign of autonomous robotic fish
  - Testing and data collection of UW APL developed Seagliders
  - Document Seaglider testing (http://vger.aa.washington.edu/~tbchamp/KWT1977.pdf)

- **Washington NASA Space Grant Consortium (Summer 2009):** Undergraduate Research Program (UW)
  - Analyzed human decision-making data with MATLAB
  - Looked for future connections to autonomous vehicles and controls
  - Collected and analyzed experimental data
  - Improved a speed control algorithm

- **Ellis & Associates Lifeguard Training (2008)**: Lifeguard for the City of Vancouver
  - Including: basic first aid, CPR, AED, and oxygen administration.
  - Learned how to take control of a situations, and act professionally under stressful situations

- **At Home At School (AHAS) Volunteer (2007)**: School of Education, Washington State University – Vancouver
  - Instructor and Group Leader for summer school children from low-income families
  - Supervised young children gaining experience as a leader

Adrian CHU

206.407.5452 | aychu@ee.washington.edu | AdrianChu.com

EDUCATION

2009 – 2011 (Expected) University of Washington Seattle, WA

- Bachelor of Science in Electrical Engineering (Digital VLSI Design) with minor in Mathematics
- Cumulative GPA: 3.44 / 4.00. Major GPA 3.34 / 4.00.
- Research: Code & Algorithm Development for the Quantum Mechanical Design of Low-Power Devices
- Leadership: Officer in Science & Engineering Business Association (SEBA), UW IEEE and UW IIE
- Activities: Industrial Assessment Center, Environmental Innovation Challenge, Business Plan Competition, Deloitte Consulting Case Challenge and member of EntreWeek committee

CAREER PROGRESSION

2010-Present UW Center for Commercialization
Seattle, WA
New Ventures Group Consultant (Fellowship/Internship)

- Developing UW Bridge Fund to provide bridge loans and capital investment to UW startups
- Examining the viability of creating new companies based on UW research (Sensors Energy and Automation Laboratory) and analyzing opportunities for licensing technologies to existing companies
- Leveraging personal network and social media tools to promote and gather feedback for technologies

2007-Present Project Development International Corporation
Seattle, WA
Assistant Business Manager

- Managing business development activities and serving as Account Manager for customers in North America and the Asia-Pacific
- Mentoring, training and supervising administrative staff; performing feasibility studies and financial analysis; and improving processes and systems to increase efficiency and reduce cost using 5-S and Lean

Summer 2010 Boeing Commercial Airplanes
Everett, WA
Manufacturing Engineer – Wiring Traveled Work Team, 787 Final Assembly (Internship)

- Solved Traveled Work manufacturing fabrication and application issues and providing project management for various installation plans
- Performed condition of assembly and gaining hands-on experience with various manufacturing disciplines focusing on airplane wiring and electrical subsystems
- Created new day-to-day business metric and performing data mining for build plan integration and job sequencing to support Industrial Engineering and the Shop Floor
- Developed database for managing installation plans that increases automation, resulting in time savings of 7 hours per week

Summer 2009 Boeing Commercial Airplanes
Renton, WA
Configuration Management & Product Integration Engineer, 737 Program (Internship)

- Provided project management among the certification, engineering, integration and delivery center teams to accomplish aircraft certification eligibility through monitoring production airplanes for configuration changes
- Improved recurring processes, resulting in a time savings of four hours per month

Andrew Liu

Objective
Obtain an internship to gain hands on experience

Education
University of Washington, Seattle, WA 2008 – 2011 (Expected)
- BS in Electrical Engineering with a minor in Mathematics
- GPA: 3.61
- Quarterly Dean's List – 6 Quarters
- Relevant Coursework– Computer Design and Organization, Digital Integrated Circuit Design, Discrete Time Linear Systems, Devices and Circuits I, Digital Circuits and Systems, Continuous Time Linear Systems, Circuit Theory, Introduction to Technical Writing

National ChengChi University, Taipei, Taiwan Summer 2009
- Chinese Language Center
- Beginning Chinese: 95.35/100

Hong Kong University of Science and Technology, Hong Kong Summer 2006
- Summer@UST Program
- Program Scholarship Award
- Coursework: Speak Chinese and Exploring Internet Multimedia

Professional Experience
CityCounty Insurance Services, Salem, OR Winter 2009
Office Assistant – Assisted the IT department in transferring data from Microsoft Excel spreadsheets to an online database

Abercrombie Kids, Tigard, OR January 2008 – September 2008
Impact Team Member – Maintained effectiveness of merchandise flow, filing, and presentation standards throughout the store and stockroom

Volunteer Experience
Free Geek, Portland, OR May 2007 – August 2007
Build Program Volunteer – Recycled and rebuilt old computers

Computer Experience
- **Fluent:** Microsoft Office
- **Project Experience**: MATLAB, Verilog HDL (Altera Quartus II, Cadence), Java (Eclipse, jGRASP), Parametric-Feature-Based CAD Software (Solidworks)
- **Exposure:** UNIX**,** Cadence Virtuoso, HTML (Dreamweaver), PSPICE

Languages
- Mandarin – Beginner
- Japanese - Beginner

SUNG CHAN LIM

11300 3RD AVE NE 310 SEATTLE, WA 98125 · (206) 446-3159
channy82@u.washington.edu

EDUCATION

University of Washington, Seattle, WA
College of Engineering, Bachelor of Science — Sep 2002 ~ Mar 2006, Sep 2010 ~ Present
Major in Electrical Engineering
Minor in Mathematics
Independent Studies: "Design and Error Analysis of Accelerometer-Based Inertial Navigation Systems" under Prof, R. Bruce Darling (EE 499, Summer 2010)

Seoul National University, Seoul South Korea
College of Natural Sciences — Mar 2002 ~ Jun 2002

Daewon Foreign Language High School, Seoul South Korea
Chinese Department — Mar 1999 ~ Mar 2002

WORK EXPERIENCE

Electrical Engineering, University of Washington — Jun 2010 ~ Present
Independent Undergraduate Research (Prof, R. Bruce Darling)
Design Human Movement Tracking and Analysis based on low-cost gyroscope-free Inertial Navigation System

Samboh English Language Center, Seoul South Korea — Dec 2006 ~ Aug 2010
SAT II Teacher
Teach Biology, Chemistry, and Math IIC to high school students and help them prepare for SAT II Subject Test

YeokSam1 Village Center, Seoul South Korea — Mar 2007 ~ May 2009
Public Interest Service Personnel (Alternative Mandatory Military Service)
Aid foreigners residing in South Korea

New-Study Academy, Seoul South Korea — Apr 2006 ~ Nov 2006
TOEFL Teacher
Teach TOEFL to high school students

Clinical Trials Center, Seoul National University — Mar 2002 ~ Sep 2002
Laboratory Assistant (Dr. Hyosup Ahn)
Process and prepare leukocyte samples from patients with blood cancer for research studies

Cosmo Genetics, Seoul South Korea — Mar 2002 ~ Sep 2002
Laboratory Assistant
Process and prepare DNA primers for commercial use

SKILLS

Computer Software
Experienced with the Microsoft Word, Excel, PowerPoint, and Visio
Comfortable conducting website research to gather information
Familiar with using computer languages and engineering softwares

Elisha Ngo

Paper Science and Chemical Engineer
University of Washington

Objective:

In search of a full time job where my skills in engineering will be further developed into a career

Education:

University of Washington, Expected June 2011
B.S in Paper Science Engineering and Chemical Engineering

- 3.15 GPA
- Official Transcript upon request

Work Experience:

Georgia-Pacific
Process Engineer/Optimization Engineer, June 2010 – August 2010

-Worked in the Kraft mill with a management team and operators
-Optimized the pulp bleaching process by reducing chemical usage, saving the company ~$1 million a year
-Coordinated and conducted trials within the Kraft mill
-Created a washing simulation using WinGems software for the bleach plant
-Helped develop solutions for different improvement ideas that resulted in energy savings

University of Washington
Laboratory Assistant, September 2006 – June 2010

-Designed and conducted research projects, individually and in groups
-Helped to create effective products for companies. Example: creating sanitary pads from agricultural residue for PATH to help African women
-Pulped wood and non-wood fibers
-Responsible for various lab tests such as titrations, and paper properties (tensile, brightness, burst, etc.)

Kemira Chemicals, Inc.
Laboratory Technician, 2007 – 2008

-Managed lab and chemical testing
-Analyzed test results
-Conducted on-site paper mill service calls
-Quality control of paper products in paper mills
-Suggested ideas for production efficiency to a paper mill, saving the mill millions of dollars

Skills:

Research capabilities, problem solver, professionalism, leadership abilities, self-motivated, team worker, fast learner, and organizational qualities

REFERENCES

BP. (2010, June). *BP Statistical Review of World Energy.* Retrieved October 20, 2010, from http://www.bp.com/liveassets/bp_internet/globalbp/globalbp_uk_english/reports_and_publications/statistical_energy_review_2008/STAGING/local_assets/2010_downloads/statistical_review_of_world_energy_full_report_2010.pdf