PRIME
Pacific Rim Experiences for Undergraduate

19 November 2009

Information Session

Gabriele Wienhausen

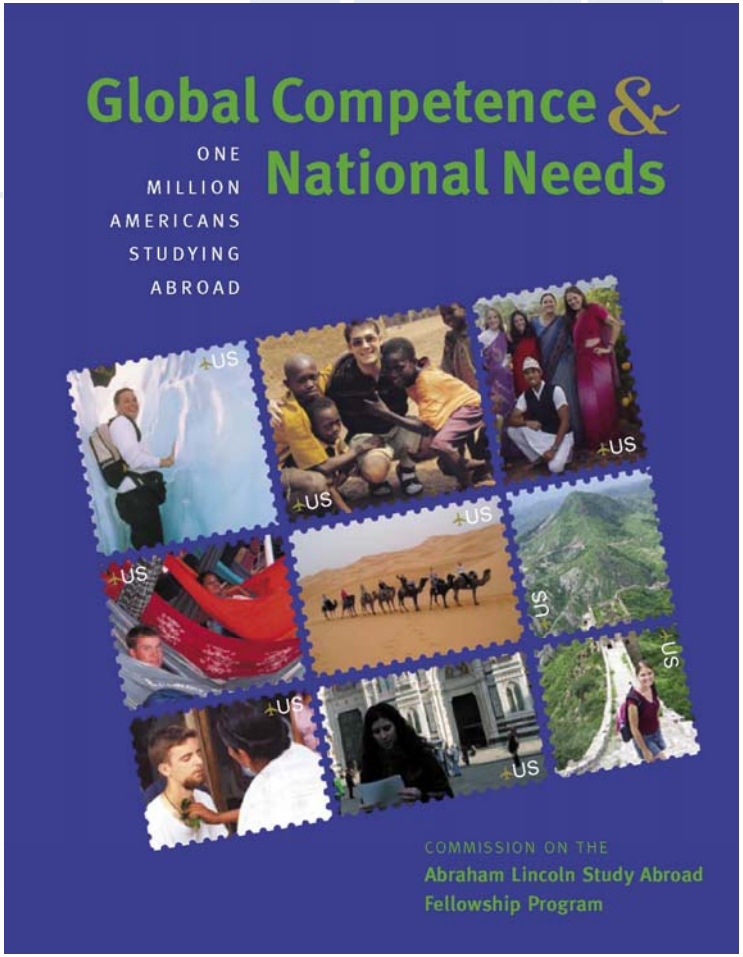
Peter Arzberger

Overview

- PRIME and Rationale
- What PRIME's goals are!
- What's new this year!
- Insights and comments from previous students
- Logistics / eligibility issues
- Your questions

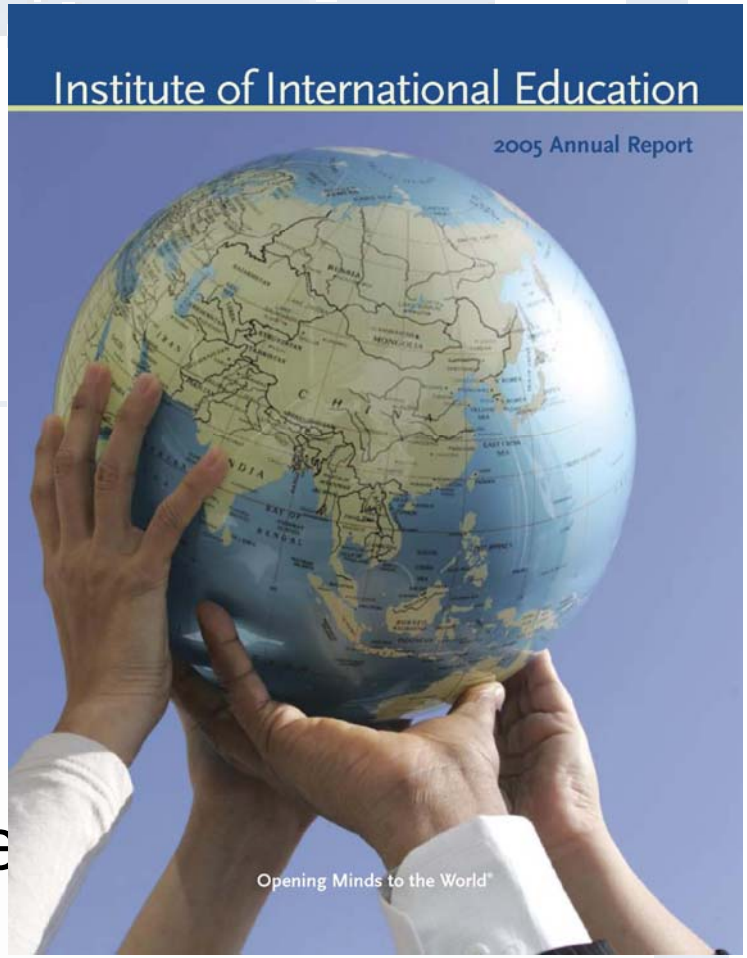
The Stakes are High

- “What nations don’t know can hurt them. The stakes involved in study abroad are that simple, that straightforward, and that important. … college graduates today must be internationally competent.” [Lincoln Report 2005]



Why Should We Care?

- “Most of the major problems facing our country in the 21st Century require every young person to learn more about the world’s regions, cultures, and languages.” [Colin Powell]
- Our society is heterogeneous, multicultural
- Less than 1% of US undergraduates in US study abroad [IIE AnnRep05]
- “Diverse teams are more creative and find better solutions than homogeneous teams.” Nokia CEO Jorma Ollila.
- Students must be prepared to compete globally for jobs and opportunities



So you want a Job?

- Google makes hiring decisions based on whether an applicant has work/study abroad
  - require diverse, multi-lingual, inter-culturally competent workers who can function effectively on international work groups and with international clients
- US engineers must understand a multiplicity of cultural approaches to engineering design
  - because they will work as system integrators on international functional teams that will change depending on the project at hand .

Pacific Rim Experiences for Undergraduate (PRIME)

Providing students international interdisciplinary
Research Apprenticeships and
Cultural Competency Learning Experiences

Begun in 2004 as

a proof of concept for honing undergraduate research and cultural competency skills

an intensive international experiential learning experience

PRIME: A Project for Global Engagement

PRIME Class 2009

- Built on top of PRAGMA people network and activities for **Undergraduate Research**:
  - Summer Research Internship in a host country laboratory
  - Mentors in US and Abroad
  - Pre-/Post experience research opportunities
  - Cultural pre-/during-/post-activity awareness component (use www.pacific.edu/culture)
  - Professional development seminars

PRIME Host and Mentor Sites

Research Apprenticeship; Cultural Experience

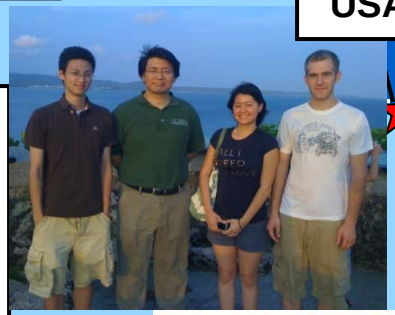
U Zurich
Switzerland

CNIC
China

Osaka U
NICT
Doshisha
Japan

UCSD
USA

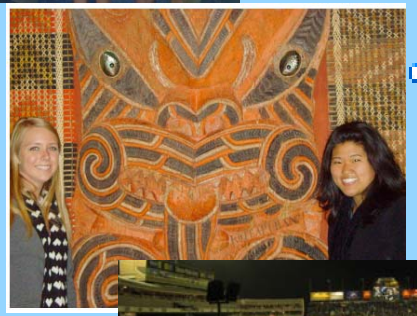
U WI
USA

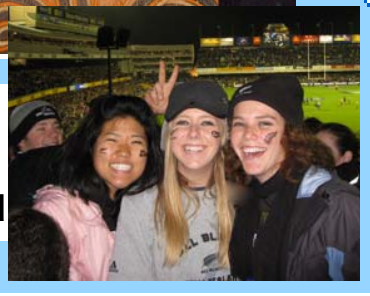


NCHC
NCREE
NNMBA
NTU
Taiwan

UoHyd
India

USM
Malaysia





Monash U
Australia

U Auckland
U Waikato
New Zealand

Source Cindy Zheng **Original host sites: Osaka U, NCHC and NCREE, Monash, CNIC;**
New in 2008: USM, U Auckland, U Waikato New in 2009: U Hyderabad India; Doshisha U and NICT Japan;
NNMBA and NTU, Taiwan. New in 2010: Jilin University

Six Years of PRIME

100+ Students, 13 sites, Engineering and Science

2004

2005

2006

2007

2008

What can you get out of this?

- Research experience and apprenticeship
- Cultural training and experience
- Travel
- More: such as opportunity to present results at national professional meetings

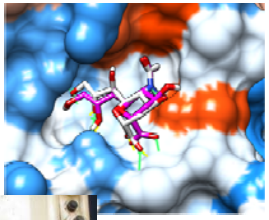
We believe better opportunities for your future!

PRIME Projects

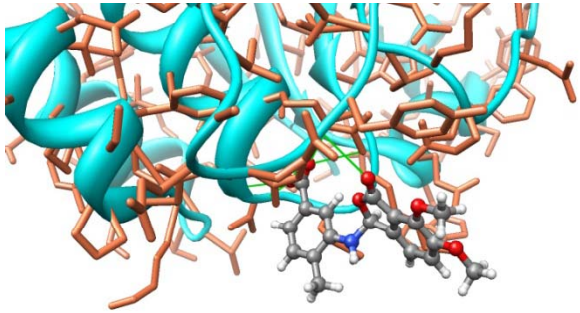
- Avian Flu (CNIC, Malaysia, NTU)
- Virtual Screening (Osaka, Malaysia, Monash, Hyderabad)
- Quantum Chemistry (Monash)
- Tile display walls (CNIC, NCHC, Osaka, Monash, NICT)
- 3d video teleconferencing (Osaka, NCHC, NICT)
- Cardiac Modeling (Monash, Auckland)
- Imaging Pipeline (Osaka)
- Computational materials modeling (NCHC, Monash)
- Environmental Modeling and Sensors (NCHC, Waikato, Hyderabad)
- Earthquake Engineering (NCREE, Auckland)
- Computer science (All)

C. Lau

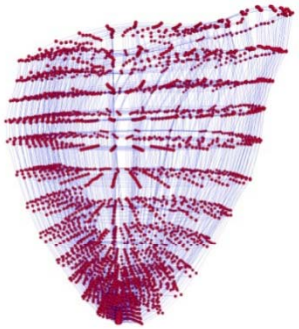
J. Kwan



M. Siy

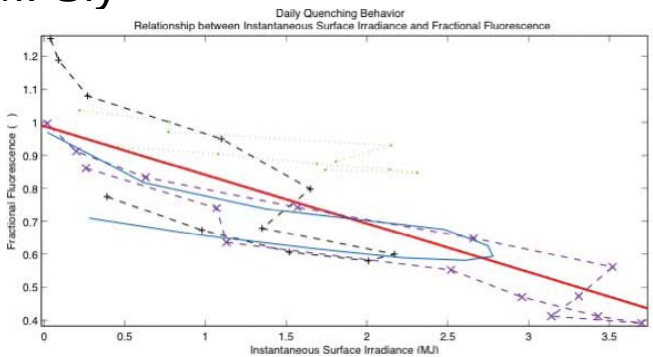


M. Mui



S. Revelli

S. Piras



J. Chin

PRIME Locations: Japan

At Gion Festival
Kyoto
By: Rachel Chu

- Osaka University
  - Virtual Screening
  - Telescience
  - Tile Display Wall
  - Visualization
- (NICT), Tokyo
  - Telescience
  - Visualization, Tile Display Wall Technology
  - Cultural Heritage
- Doshisha University

Kyoto

- High resolution CT and MRI Image Processing
  - Cartilage surface localization
  - Spine motion analysis

Phillip Pham

PRIME Location: Taiwan

- National Center for High-performance Computing (NCHC)
  - Environmental modeling and monitoring
  - Simulation
  - Health Grid
  - Virtualization (Cloud Computing)
  - Visualization, Tile Display Walls
  - Micro array analysis
  - Avian Flu

- National Center for Research on Earthquake Engineering (NCREE)
  - Structural Engineering
- National Museum of Marine Biology and Aquarium (NMMBA)
  - Coral Reef Ecology
  - Information Technology

PRIME Location: Australia

- Monash University
  - Computer Science
  - Cardiac Modeling
  - Molecular Science modeling
  - Tile Display Walls
  - Virtualization, cloud computing

Haley Hunter-Zinck

PRIME Location: China

- Computer Network Information Center (CNIC), Beijing
  - Avian Flu Grid
  - Simulation
  - Databases
  - Visualizations, Collaborative Environments
- Jilin University **NEW**
  - Avian Flu Grid
  - Cloud Computing

M. Wang

PRIME Location: Malaysia

- Universiti Sains Malaysia (USM), Penang
  - Virtual Screening
  - Drug discovery
  - Avian Flu Grid

Jessica Hsieh

PRIME Locations: New Zealand

- University of Auckland, Auckland
  - Structural Engineering
    - Testing Program
    - Data Archiving
  - E-science and Geosciences
    - GIS
    - GeoVisualization
    - Remote Sensing
  - Bioengineering

- University of Waikato, Hamilton New Zealand
  - Environmental monitoring of lakes
  - Sensor Networks

Jefferson Hang

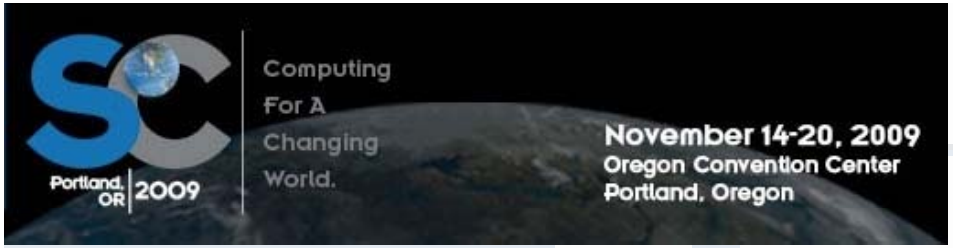
PRIME Locations: India

- Geosciences; computer and computational sciences (parallel computing); Nano devices, Lidar data, Cancer Research, New Molecules, Physics
  - University of Hyderabad, Hyderabad India
- Participate in Study in India Program (SIP)

Dee Chen: Golconda Fort

SIP Students in front of the University Main Gate

Dee Chen



Presentations

- Wen-wai Yim: Implementing DOCK on Virtual Clusters (Cybermedia Center Osaka U)
- Jade Kwan: 3-D Visualization of Astronomical and Network Analysis Data(NICT)
- Christopher Lau: Multiple Instance Tiled-Wall Display for Chimera (Cybermedia Center Osaka U)
- Matt Mui: Identification of a Specific Inhibitor for Dual- Specificity Phosphatase Ssh-Using Grid Computing (U of Hyderabad)
- Jennifer Choy: Ensemble Based Virtual Screening for H5N1 Non-Structural Protein 1 Effector Domain Inhibitors (NTU)
- Ramya Chitters: Using Nimrod/E to Perform Sensitivity Analysis in Cardiac Electrophysiological Models (Monash U)

Publications 2008 and 2009

- Robust Workflows for Science and Engineering, Abramson, D, Bethwaite, B, Enticott, C, Garic, S, Peachey, T, Michailova, A, Amirriazi,S and Chitters, R, to appear, *ACM MTAGS09, 2nd Workshop on Many- Task Computing on Grids and Supercomputers*.
- Mechanism of Glycan Receptor Recognition and Specificity Switch for Avian, Swine and Human Adapted Influenza Virus Hemagglutinins: A Molecular Dynamics Perspective. Newhouse EI, Xu D, Markwick PRL, Amaro RE, Pao HC, Wu KJ, Alam M, McCammon AJ, Li WW. *J Am Chem Soc, 2009*
- Identification of a Specific Inhibitor for the Dual-Specificity Enzyme SSH-2 via Docking Experiments on the Grid. Pham, Phil; Marshall Levesque (UCSD); Kohei Ichikawa, Susumu Date (Osaka), Jason Haga (UCSD). IEEE E-science 2008
- Virtual Screening for SHP-2 Specific Inhibitors Using Grid Computing. Han, Simon X; Marshall Levesque (UCSD); Kohei Ichikawa, Susumu Date (Osaka), Jason Haga (UCSD). IEEE E-science 2008
- Optimized Rendering for a Three-Dimensional Videoconferencing System. Chu, Rachel, Daniel Tenedorio, Jurgen Schulze (UCSD); Susumu Date, Seiki Kuwabara, Atsushi Nakazawa, Haruo Takemura (Osaka); Fang-Pang Lin (NCHC). IEEE E-science 2008

Publications and Software

- Levesque, MJ, K Ichikawa. S Date, JH Haga. Bringing Flexibility to Virtual Screening for Enzymatic Inhibitors on the Grid. Grid 2008. Tsukuba Japan.
- Levesque MJ, Ichikawa K, Date S, Haga JH. Design of a Grid Service-based Platform for In Silico Protein-Ligand Screening. Computer Methods and Programs in Biomedicine (accepted Aug08).
- Cheng LS, Amaro RE, Xu D, Li WW, Arzberger PW, McCammon JA. Ensemble-based Virtual Screening Reveals Novel Antiviral Compounds for Avian Influenza Neuraminidase. JMC. (Accepted April 2008)
- Amaro R, Minh DDL, Cheng L, Olson A, Lin JH, Li W, McCammon J, Remarkable Loop Flexibility in Avian Influenza N1 and its Implications for Antiviral Drug Design, JACS ASAP Web Release Date: 01-Jun-2007
- Abramson D, Amoreira C, Baldridge K, Berstis L, Kondrick C, Peachey TC. A Flexible Framework for Protein-Ligand Docking, 2nd IEEE International Conference on e-Science and Grid Computing. Dec. 4- 6, 2006, Amsterdam, IEEE Computer Society, Los Alamitos USA, pp. 1-8.
- Sudholt W, Baldridge K, Abramson D, Enticott C, Garic S, Kondrick C, Nguyen D. Application of Grid Computing to Parameter Sweeps and Optimizations in Molecular Modeling. *Future Generation Computer Systems (Invited),* 2005. *21*, 27-35.
- Poster at Biophysics Soc. Feb 08(S. Amirriazi, S. Chang)
- Cytoscape Plug In: Hyperbolic Layout Plugin (Robert Ikeda)
- Improved Software (Covise – D. Jackson, A. Pierce)
- Controlled Vocabulary GLEON Andreas Cardenas





Four and Five Years Later

"The PRIME program truly changed my life!" Laura Berstis, CompChem PhD Program U Zurich

"Visiting Taiwan made me realize that there is a whole world outside of the United States" Robert Ikeda, CS PhD Program, Stanford

"Without question, PRIME was the most influential experience I had during my time as an undergraduate at UCSD" John Colby, MD PhD Program, UCLA

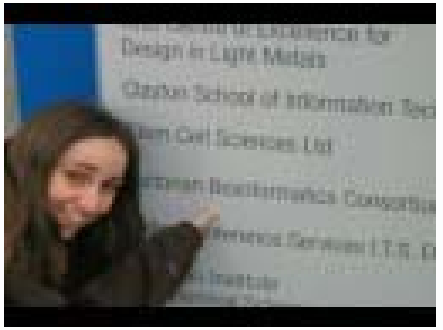
"I came to understand my family better, which really is to understand myself better." Shirley Lee, quality engineer, Abbott Vascular

http://www.calit2.net/newsroom/release.php?id=1413

YouTube

PRIME 2008 Video

PRIME 2006 Video



PRIME 2007 Video

http://www.youtube.com/Calit2ube

Eligibility

- US Citizen or permanent resident
  - With a valid passport or the ability to acquire a valid passport **prior to April 2010**
  - **Visa requirements are the responsibility of the student (HOWEVER no visa, no travel)**
- Full time student
- Typically completed sophomore year before going
- GPA of at least 3.0 (out of 4.0)
- Return to UCSD as enrolled student for at least one quarter
- Expected to devote at least 4 hours / week preparing in Spring Quarter!

Application Materials

- Application Form (web site)
- Personal statement
- Proposed Activity
- Acknowledgment from UCSD and Host mentor
- CV, Transcript, personal references
- Agreement to
  - Spend 4 hours a week prior to departure working in UCSD mentors lab
  - Participate in future information sessions

Timeline 2010

- January – Info Session 2
  - 14 January 2010 (Thursday)
- Preliminary Application (application form)
  - **22 January 2010 Friday**
- Application Deadline
  - **19 February 2010 Friday**
- Decisions before Spring Quarter
  - Interviews weeks of 1 though 6 March 2010
  - Decisions week of 22 March 2010
- Depart for host site a week to 10 days after Spring Quarter ends

Other Events: Monday 23 November 2009

- PRIME Australia Research Information Session
  - David Abramson, Monash University
  - International Center; Oceanids Pavilion, Noon to 1:30 pm
  - Pizza
- BENG 192: PRIME Seminar
  - Organized by Robert Sah and Jason Haga, BioEng
  - Fung Auditorium; 4 pm to 6 pm
  - PRIME students Ramya Chitters, Randy Lee, Scott Revelli;
  - David Abramson, snacks

Other Events

- PRAGMA 18 Workshop
  - 2 – 4 March 2010
- Coral Reef Observing Workshop
  - 5 March 2010
- Both on UCSD Campus
- Opportunity to meet mentors from PRIME sites, and hear PRIME students

Program Supports

- Supplements Expenses (**may not cover in full!**)
  - Airfare (round trip)
  - Lodging – 9 weeks
  - Food (student fare) – 9 weeks
  - Transportation (depending on location)
  - Enrollment in summer session at UCSD for one unit of credit, via AIP
    - Students will enroll in AIP, receive a unit of credit and a transcript notation.

Scholarships: PRIME 2009

- UCSD Undergraduate Research Scholarship
  - http://www.ucsd.edu/current-students/finances/financial-aid/types/scholarships/undergraduate-research.html.
  - Deadline early April

- Chelsea Wong, CNIC, China
  - Biological Sc. Eureka Research Scholarship
  - Avian Flu
- Anna Pham, Osaka, Japan
  - Chancellors Research Scholarship
  - Cardiac Modeling
- Kelli Xu, Doshisha, Japan
  - Doris Howell Research Scholarship
  - End-plate Microstructure
- Lori Jue, NCREE, Taiwan
  - Chancellors Research Scholarship
  - Earthquake Engineering
- Scott Revelli, Monash U, Australia
  - Chancellors Research Scholarship
  - Cardiac Modeling





A Final Thought

- *“Peace and prosperity around the world depend on increasing the capacity of people to think and work on a global and intercultural basis. As technology opens borders, educational and professional exchange opens minds.”[i]*
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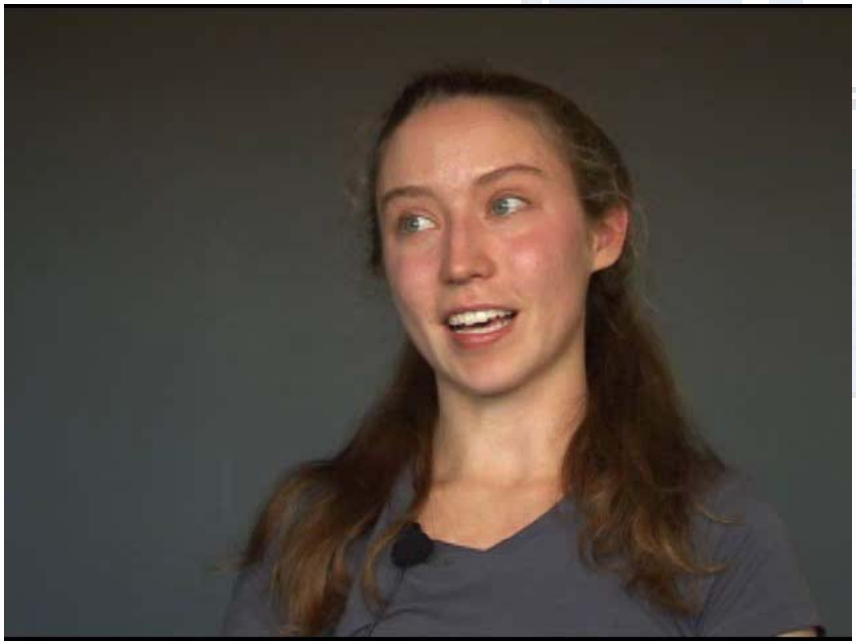


[i] Annual Report IIE 2005, and http://www.iie.org/ “About”

PRIME

PACIFIC RIM UNDERGRADUATE EXPERIENCES

prime.ucsd.edu

Comments from Prior PRIME Students

Comments from PRIME Mentors

Questions from Prospective PRIME Student

PRIME 2009

Osaka

Monash

Doshisha

Waikato

Auckland

CNIC

NCREE

NTU

PRAGMA

PACIFIC RIM APPLICATIONS AND GRID MIDDLEWARE ASSEMBLY

NICT

NMMBA NCHC NTU

U Hyderabad

USM

Saying Goodbye to the Lab

Malay Village

Convex

Cindy's visit

International & Local Students


A DAY IN GEORGETOWN
Acheen St. Mosque
Cheah Kongsi
Hock Teik Cheng Sin
Syed Atlas Mansion (Islamic Museum)
Teochew Opera at Goddess of Mercy Temple
My Trishaw Driver
I AM ?
St. George's Church
Getting my last stamp
Town Hall
Enjoying a late night snack
Meeting the Chief Minister of Penang ☺

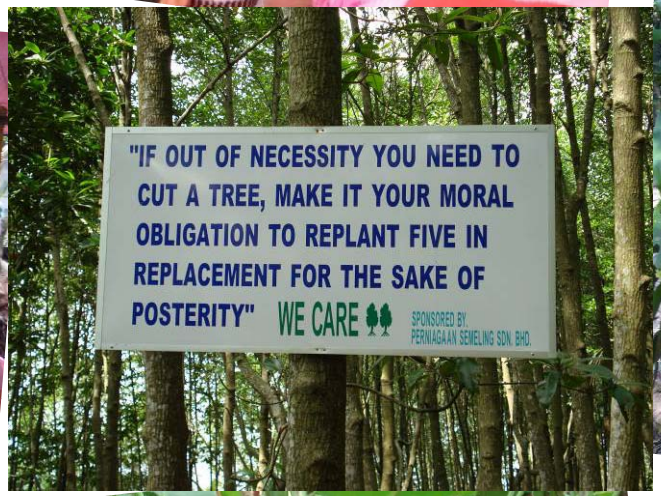

Merbok

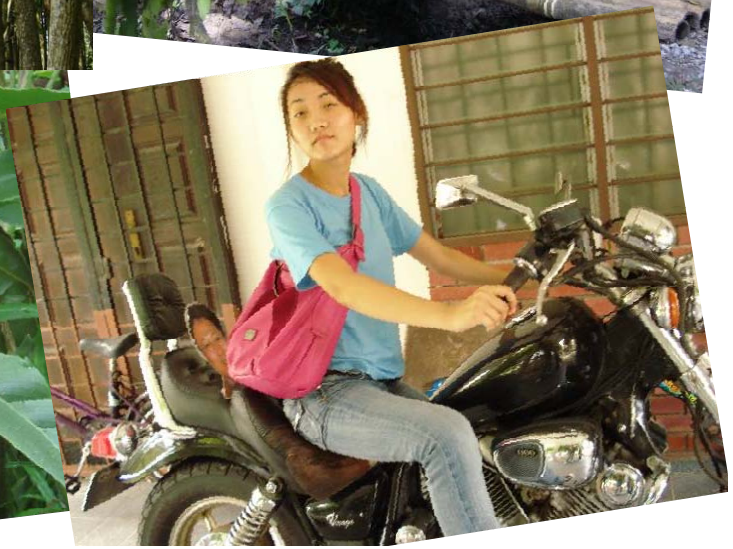


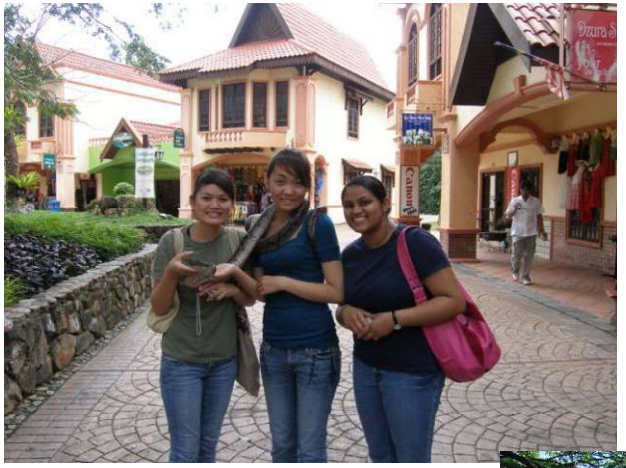


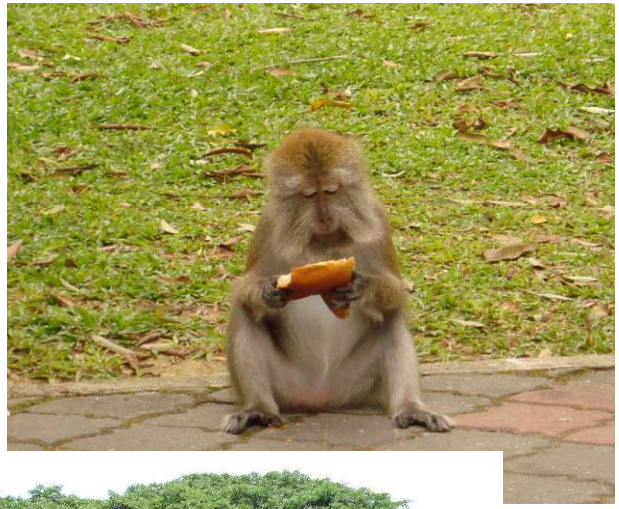


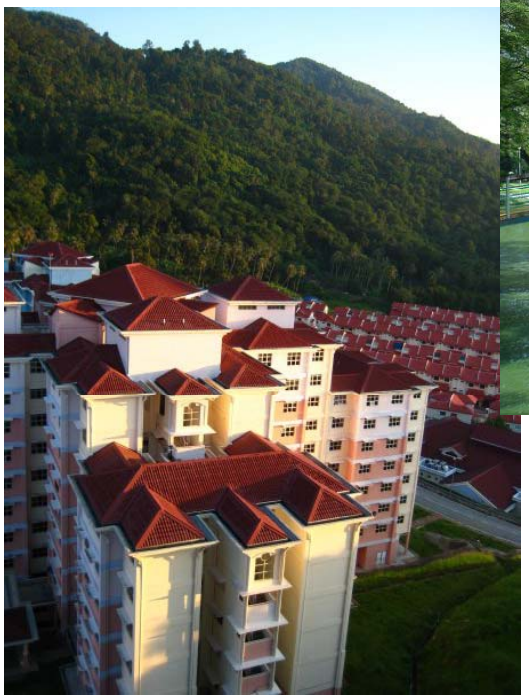



"IF OUT OF NECESSITY YOU NEED TO CUT A TREE, MAKE IT YOUR MORAL OBLIGATION TO REPLANT FIVE IN REPLACEMENT FOR THE SAKE OF POSTERITY"
WE CARE
SPONSORED BY:
PERNIAGAAN SEMELING SDN. BHD.









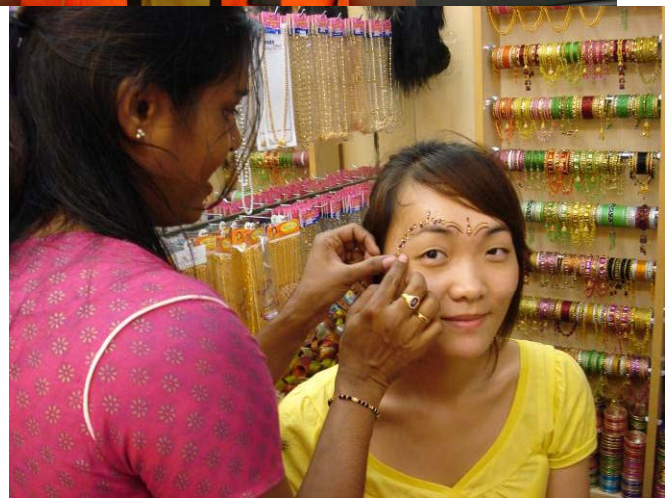

MAJLIS PENYAMPAIAN











Research

Computer Network Information Center, Chinese Academy of Sciences

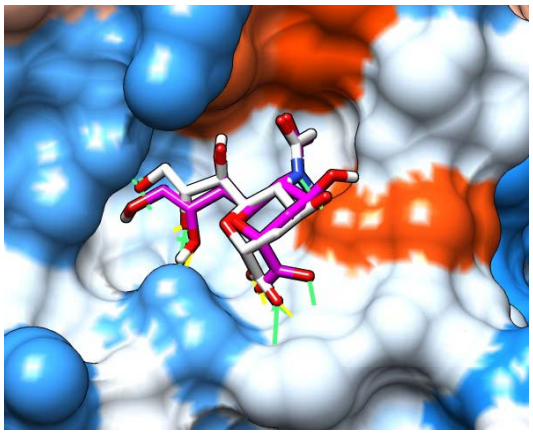
A Search for Small Molecule Inhibitors of Hemagglutinin

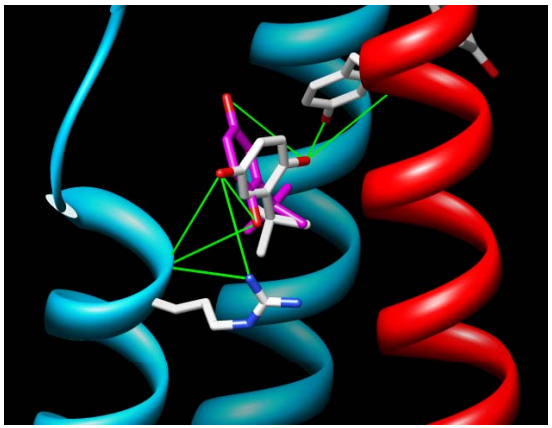
- H5N1 strain of the Avian Influenza A Virus

1) Search for small molecule inhibitors that may have a high affinity for the hemagglutinin receptor-binding domain of the influenza virus
2) Search for an inhibitor against hemagglutinin that stops the conformational change of the trimers needed for membrane fusion

- Began with redocking, then virtual screening… RCS

Concerns: - Learning everything in one quarter and finishing my project





- During the application process:
  Finding a mentor
- At the host site:
  What would it be like?

PRIME 2009 ▪ NSF

Cultural Experience

Computer Network Information Center, Chinese Academy of Sciences

- Sightseeing (the Great Wall, Summer Place, Forbidden City, Tiananmen Square, Shanghai, and much more!)
- Learning similarities and differences between cultures
- Meeting great new people and lots of amazing food!

PRIME 2009 ▪ NSF

NBCR NATIONAL BIOMEDICAL COMPUTATION RESOURCE
Conduct, catalyze and enable multiscale biomedical research

UCSD

Doshisha University

- Est. 1875
- Private university in Kyoto, Japan

Kyoto, Japan

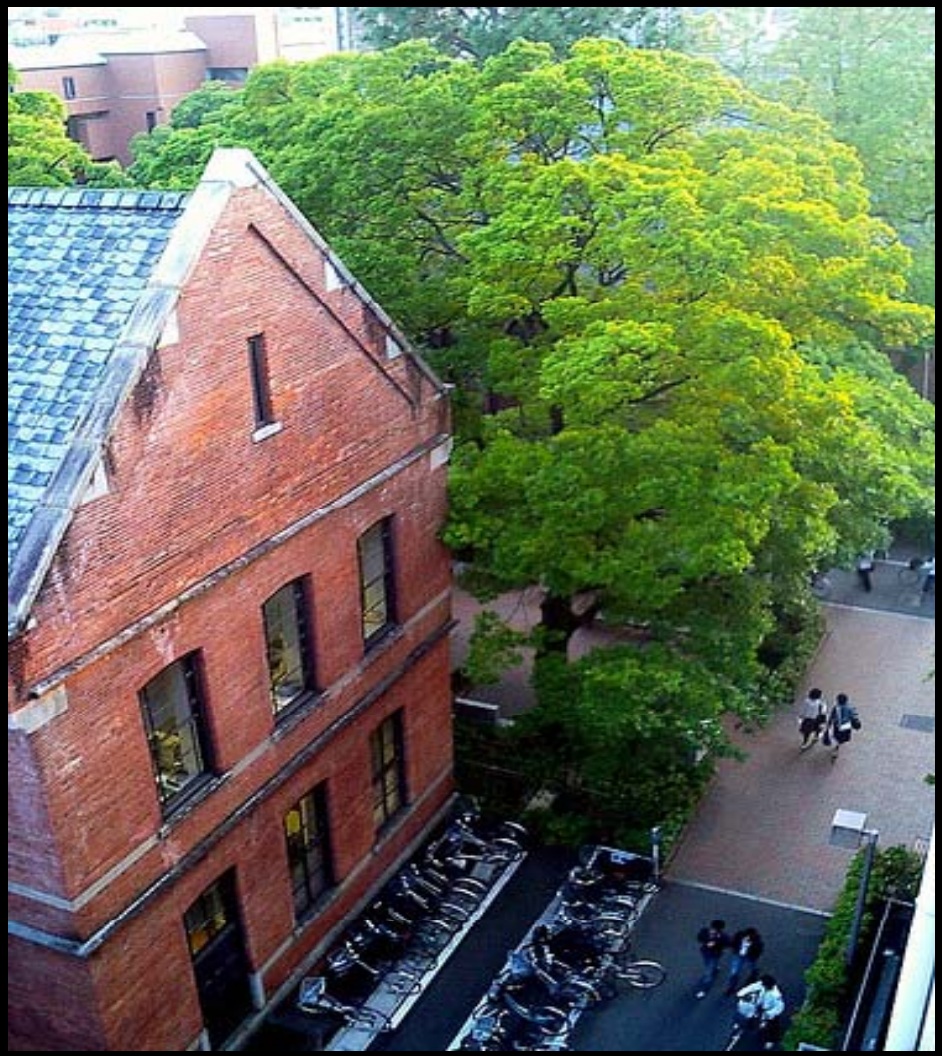
- Ancient capital of Japan
- Center of Japanese culture and heritage

PRIME at Doshisha

- UCSD Mentors – Robert L Sah, MD, ScD; Koichi Masuda, MD
- Doshisha Mentor – Nozomu Inoue, MD, PhD
- Past Projects:
  - Quantification of Joint Fluid Volume and Characterization of Cartilage Lesions via 3D MRI
  - Facet Joint Kinematics During Extension and Flexion
  - Investigation of Endplate Microstructure Using Micro-CT

Doshisha University

- Students going to the library to study at 5:41am for their final exams.
- View from the 4th Floor of Ishinkan



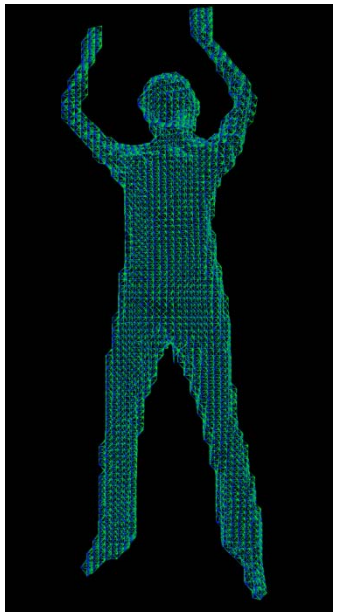
Doshisha University

- Doshisha University on Saturday; the day of the 1st UCSD-Doshisha Medical Center Conference.
- The campus is usually empty on weekends.

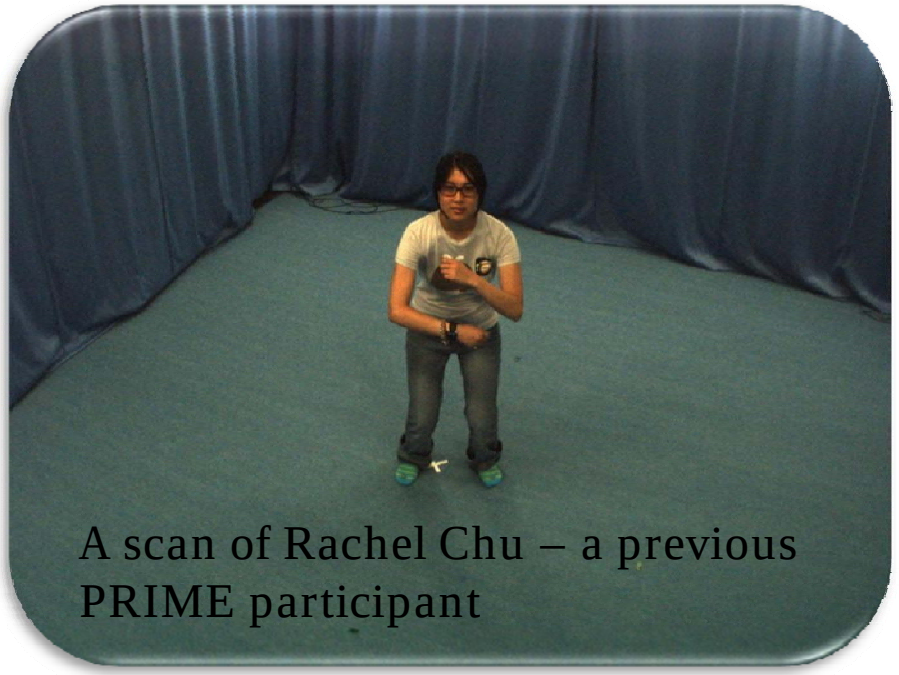
Ishinkan Building – Main Lobby

Osaka University's Scanner

Osaka University uses a shape from silhouette scanner. The scanner consists of eight evenly spaced out cameras that completely surround the subject. By capturing the eight images and detecting the silhouettes, a numerical representation of the scan can be formed. More specifically, the algorithm subdivides the object definition space into a three-dimensional grid and then checks if each voxel belongs to the grid by verifying that its 2D projection falls inside the silhouette of the corresponding image.



Early representation of scanned data

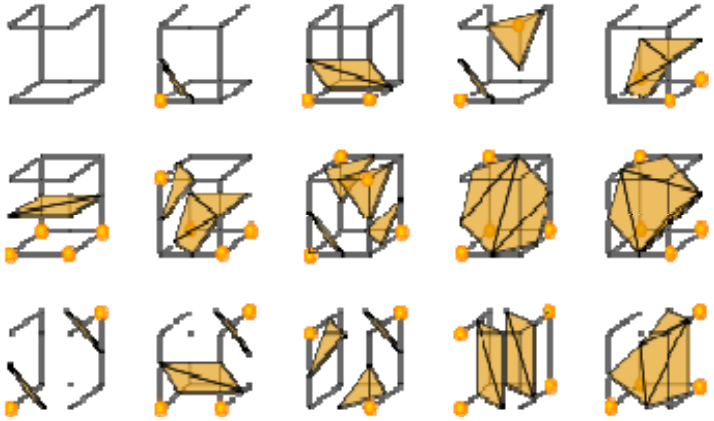


A scan of Rachel Chu – a previous PRIME participant

Processing

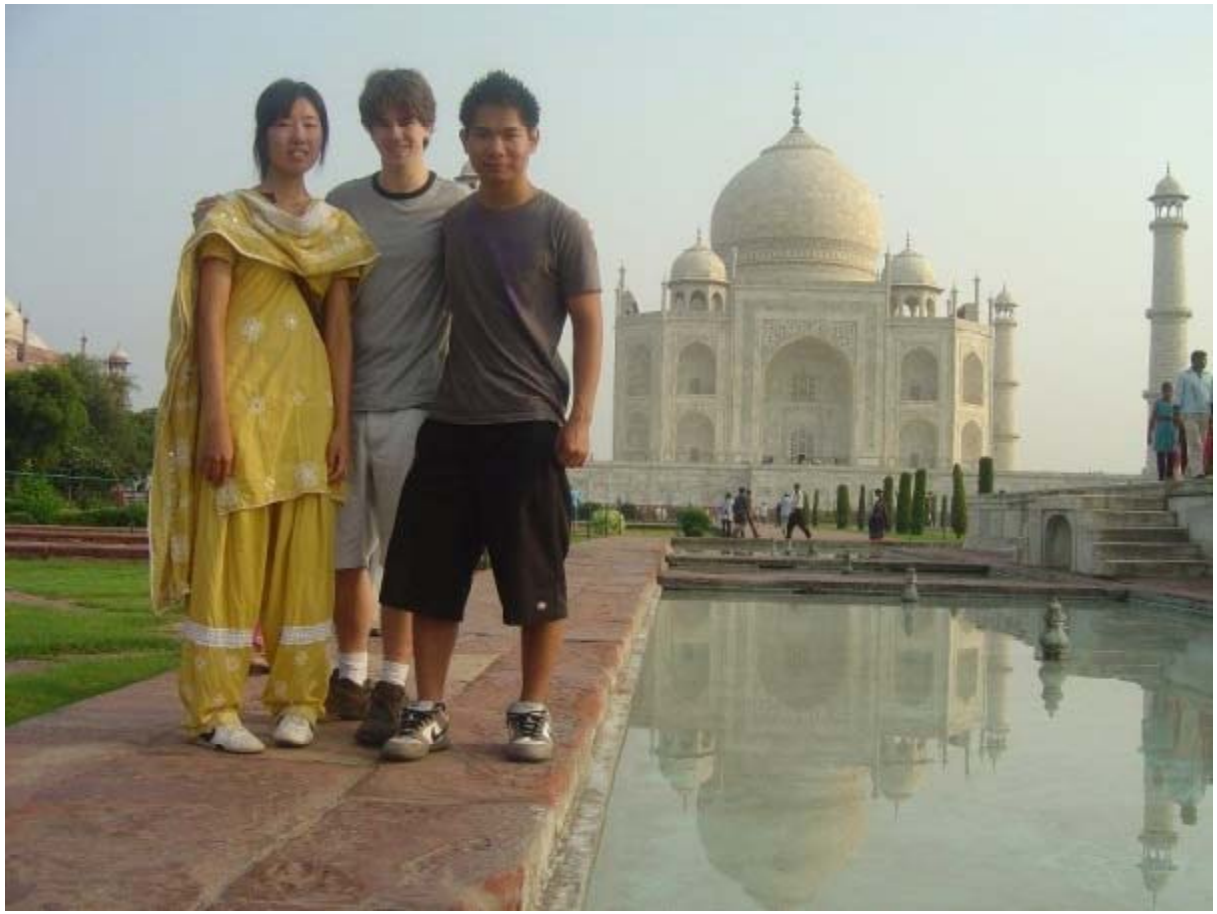
- To put it simply, my job was to find a way to efficiently take the scanned data and prepare it for rendering in a 3D virtual environment.
- To achieve this goal, I developed a modified Marching Cubes algorithm and a texture mapping technique.

UCSD's StarCAVE



Marching Cubes - possible cubes

India



India

Auckland, New Zealand

View of Auckland Central Business District from the harbour.

Auckland Harbour Bridge

Auckland - The City of Sails

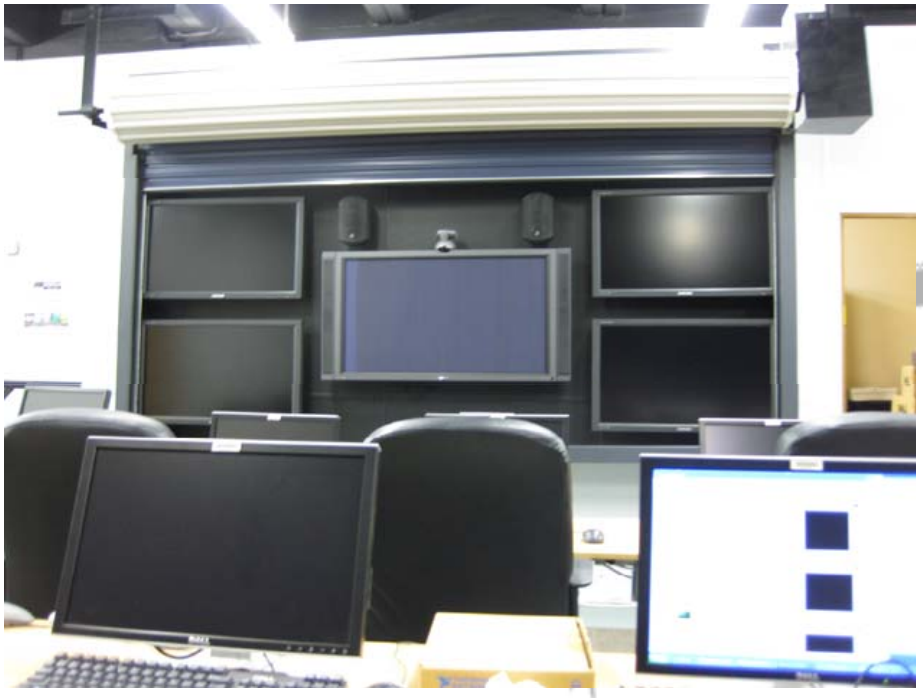
View of Auckland from Eden Park

University of Auckland, New Zealand

Civil and Environmental Engineer Department Building.

UoA Mentors: Dr. Jason Ingham
Dr. Liam Wotherspoon

UCSD Mentor: Dr. Lelli Van Den Einde



Data Visualization Laboratory - your work area!

Jennifer S. Choy

PRIME 2009

National Taiwan University

– Taipei, Taiwan

Mentors:

-Dr. Wilfred Li[1,2]

-Dr. Jung-Hsin Lin[4,5,6]

-Dr. Phineus Markwick [3]


饒河街觀光夜市
Raohe St. Night Market
通化街
米粉湯
魯肉飯
40年老店


N.C.R.E.E.
(National Center for Research on Earthquake Engineering)
Taipei, Taiwan
Mentors:
UCSD: Dr. Lelli Van Den Einde
PRIME: Dr. K.C. Tsai

THE LAB!!!

Clockwise from Top Left: The lab, The MATS testing system, Typical Box lunch at NCREE, NTU library, View from my Office window

Summer Housing

•Housed in Prince House “Shui Yuan” Dorms
• Biked to NCREE every day (15 minute ride)
• Food was very close and convenient – Always just ate out, never cooked
•Two Night Markets were with in a 5 minute walk
•BRING AN UMBREALL, SUNSCREEN, and MOSQUITO REPELLENT!

View of Taipei City and Taipei 101 from Xiang Shan

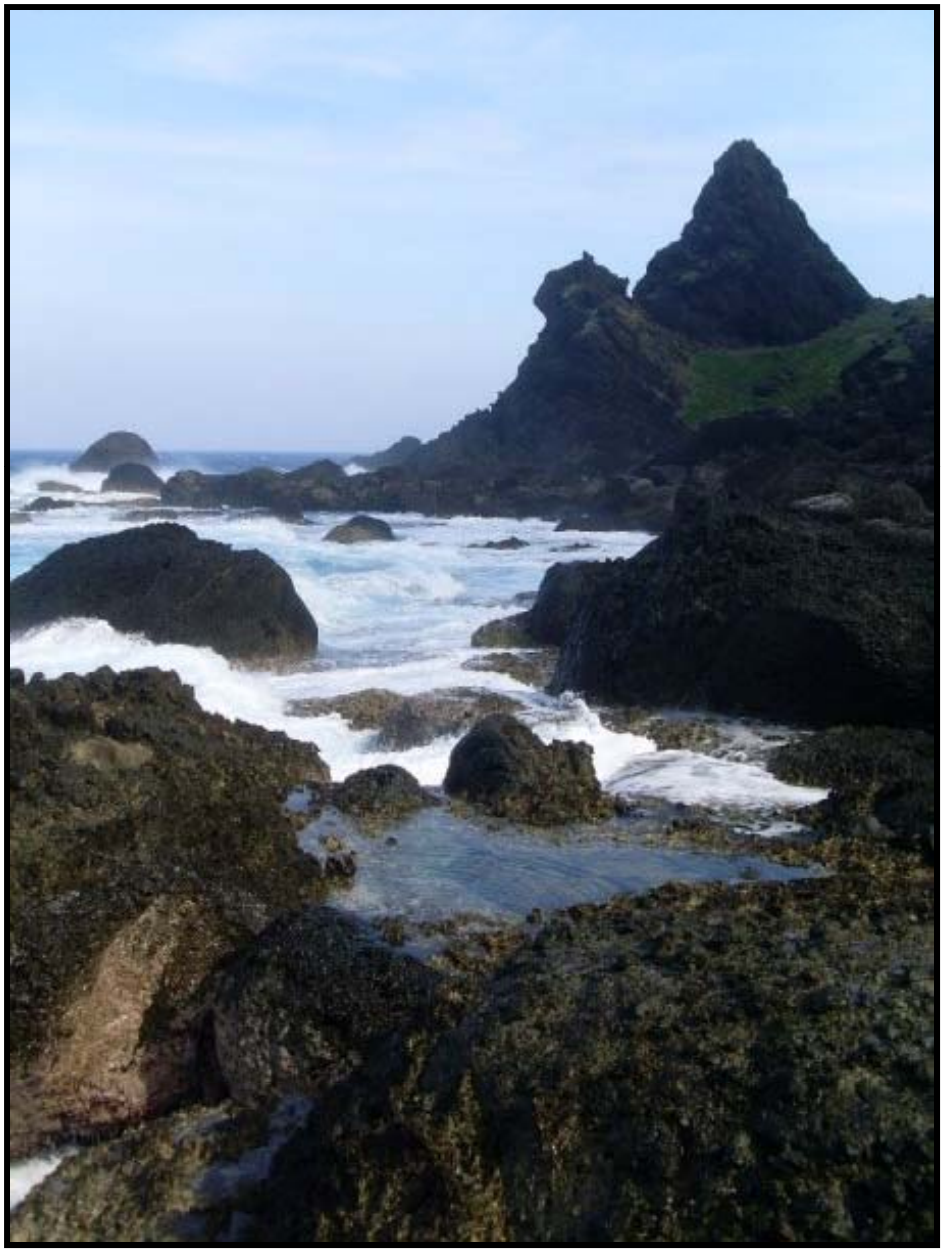
NIGHT LIFE IN TAIWAN

Night markets everywhere!

Taichung City at dusk

Michael Nekrasov takes picture of Checheng from top of Turtle Mountain.

Rocky shores of Orchid Island



Questions

- How do I find a mentor?
- Am I really able to do this, since I don’t know much about grid computing?
- Why should I apply?

Sources of Information

- prime.ucsd.edu
- Calit2 youtube
- Brochure
- PRAGMA Collaborative Overview 2009 - 2010

Proposed host sites for 2010

- Computer Network Information Center, Chinese Academy of Sciences, Beijing, China
- Doshisha University, Kyoto, Japan
- Monash University, Melbourne, Australia
- National Center for High-performance Computing, Hsinchu, Taiwan
- National Center for Research on Earthquake Engineering, Taipei, Taiwan
- National Institute of Information and Communications Technology, Kyoto, Japan
- National Museum of Marine Biology and Aquarium, Kenting, Taiwan
- National Taiwan University, Taipei, Taiwan
- Osaka University, Osaka, Japan
- Universiti Sans Malaysia, Penang, Malaysia
- University of Auckland, New Zealand
- University of Hyderabad, Hyderabad, India
- University of Waikato, Hamilton, New Zealand

.....Further Information.....
Teri Simas
tgraysimas@ucsd.edu

Application Process

ELIGIBILITY

- US citizen or permanent resident with a valid passport. Visa requirements are the responsibility of the student.
- Full-time UCSD student
- Prefer Junior class standing prior to departure
- GPA of at least 3.0 (out of 4.0)
- Return to UCSD as an enrolled student for at least one quarter
- Expected to devote at least 4 hours/week preparing for the internship during spring quarter.

APPLICATION MATERIALS

- Application form (at prime.ucsd.edu)
- Personal statement
- Proposed activity
- Letter from both UCSD & host mentor
- CV, transcript & personal references
- Agree to:
  - Spend 4 hours/week prior to departure working in UCSD mentor's lab.
  - Participate in future info sessions

Major funding and support for PRIME comes from the National Science Foundation, Calit2, and the host sites.

PRIME
Pacific Rim
Undergraduate Experiences

An international research and cultural experience to prepare students for the global workplace in the 21st century

Application Deadline: February 19, 2010

prime.ucsd.edu

PACIFIC RIM UNDERGRADUATE EXPERIENCES

Background

Launched in 2004 with support by the National Science Foundation, PRIME provides students from UCSD the opportunity to participate in international research and cultural experiences that will better prepare them to participate in the global workplace of the 21st century.

The students' research and related activities will contribute to the development of the exciting global cyberinfrastructure that brings observing platforms, computers, data, and most importantly, people together to conduct new research.

These unique research internships will allow students to be "cyberinfrastructure ambassadors" to leading institutions around the Pacific Rim and to gain experience of living and working at an international research site outside of the US.

PRIME 2010 Schedule

Dates	Time	Description
Jan 22, 2010	4pm	Preliminary application deadline
Feb 19, 2010	4pm	Final application deadline

Visit prime.ucsd.edu for details regarding information sessions, confirmed logistics & program requirements

Important Facts

SUPPORT
Selected students receive support to supplement the costs of airfare, housing, food & incidental expenses.

DURATION
The summer research internship is nine weeks in duration.

ACADEMIC CREDIT
Students participating in PRIME receive one academic credit through the Academic Internship Program and a transcript notation.

How to Find a Mentor

- Variables: Site, UCSD Mentor, Area
- Go to FAQ page, on Mentor
  - Tables by UCSD mentors, by Host Sites
- Read PRAGMA Collaborative Overviews

Changes from 2009

- PRIME does NOT support all costs of the program
- Application Change
  - Copy of Passport at time of interview!
- Logistic Changes
  - All departures/returns will be from SAN unless you reply on time!
  - Visa Applications must be submitted within a week of accepting

PRIME 2010 Overview

ELIGIBILITY

- US citizen or permanent resident
  - with a valid passport or the ability to acquire a valid passport prior to April 2009
  - visa requirements are the responsibility of the student
- Full time student
- Typically completed sophomore year; junior status prior to departure
- GPA of at least 3.0 (out of 4.0)
- Return to UCSD as an enrolled student for at least one quarter
- Expected to devote at least 4 hours / week preparing during spring quarter!

TIMELINES

- Nov 19 2009 - Info session,
  - CSE 1202, 4:00 pm – 6:00 pm
- 14 January 2009
  - ?, 5 -6:30 pm
- Preliminary application
  - **Friday – 22 January 2010**
- Application deadline
  - **Friday – 19 February 2010**
- Decisions before spring quarter
  - Interviews – 1 to 6 March 2010
  - Decisions – week of 22 March 2009
- Depart 7- 10 days after spring quarter ends

prime.ucsd.edu (15Nov09)

- UCSD mentors
- Projects from previous years
- Host sites and mentors
- Application forms
- YouTube Video; student experiences

www.pragma-grid.net

- PRAGMA Collaborative Overview (projects)

APPLICATION MATERIALS

- Application form (web site)
- Personal statement
- Proposed activity
- Note from UCSD and host mentor
- CV, transcript, personal references
- Agree to:
  - Spend 4 hours a week prior to departure working in UCSD mentor's lab
  - Participate in future information sessions

PROGRAM LOCATIONS: Osaka, Kyoto, Tokyo; Hsinchu, Taipei; Melbourne Beijing, Changchun ; Penang; Hyderabad Auckland, Hamilton

PROGRAM SUPPORT

- Expenses supplemented by PRIME
  - Airfare (round trip); Lodging – 9 weeks; Food (student fare) – 9 weeks
  - Enrollment in summer session at UCSD for one unit of credit, via AIP