

## **CS Masters Project/Thesis Completed (CSUSM)**

*Project Laura Bolanos*

*Single Nucleotide Polymorphisms Analysis of *Emiliana Huzleyi* Across Different Strains*

*Advisor: Xiaoyu Zhang - Bioinformatics*

*Completed August 2009*

*Project Neha Pasrija*

*Tutor Writer Input File Generator*

*Advisor: Rika Yoshii – Educational software*

*Completed December 2009*

*Thesis Bithika Joshi*

*Analysis of Protein Pocket Ligand Overlaps Using the Two Step Level Set Matching Algorithm*

*Advisor: Xiaoyu Zhang - Bioinformatics*

*Completed February 2010*

*Thesis Curtis Jensen*

*A Machine Learning Approach for Identifying Subtypes of Autism*

*Advisor: Rocio Guillen – Artificial Intelligence*

*Completed Spring10*

*Thesis Guy Young*

*Characteristics of the SECIS Elements*

*Advisor: Ahmad Hadaegh - Bioinformatics*

*Completed Summer10*

*Thesis Mat Lehman*

*Developing 3D Virtual World to Enhance Teaching and Learning of Computer Concepts*

*Advisor: Youwen Ouyang – Educational software*

*Completed Spring10*

*Project Jaime Gamarra*

*Genome : Wide Analysis of Micro RNAs in the *E. Huxleyi**

*Advisor: Xiaoyu Zhang - Bioinformatics*

*Completed Spring10*

*Thesis James Crowe*

*Capturing Location-Based Multimedia Data Via an Android App to Enhance Collaborative Discussions*

*Advisor: Youwen Ouyang – Educational software*

*Completed Fall10*

*Project Li Liang*

*Map-based Determining System for Solar Panel Construction*

*Advisor: Youwen Ouyang – Educational software*

*Completed Fall10*

*Project Sheng Tan*

*Parallel Implementation of Bioinformatics Algorithms on GPU Using OpenCL and CUDA*

*Advisor: Xiaoyu Zhang - Bioinformatics*

*Completed Fall10*

*Project Kuei-Te Peng*

*Finding new gene models and improve for tiling array data*

*Advisor: Ahmad Hadaegh - Bioinformatics*

*Completed Fall10*

*Project Tze Tin Chen*

*Comparison study of *Emiliana Huxleyi* Gene Structure Using Tiling Microarray and Solexa Sequencing*

*Advisor: Ahmad Hadaegh - Bioinformatics*

*Completed Fall10*

*Thesis Jiexin Li*

*Adaptive Visual Tutor for C++ Language*

*Advisor: Rika Yoshii – Educational software*

*Completed Spring11*

*Thesis Marcy Stewart*

*Comparative Gene Discovery in *Emiliana Huxleyi**

*Advisor: Xiaoyu Zhang - Bioinformatics*

*Completed Spring11*

*Thesis Tim Horton*

*Developing a Prediction Model for the *Emiliana Huxleyi**

*Advisor: Xiaoyu Zhang - Bioinformatics*

*Completed Spring11*

*Thesis Charles Cowart*

*A Hybrid Approach to Biomedical Assertions*

*Advisor: Rocio Guillen – Artificial Intelligence*

*Completed Spring11*

*Project David Kunz*

*Design and implementation of an agent to classify e-commerce customers*

*Advisor: Rocio Guillen – Artificial Intelligence*

*Completed Spring11*

*Thesis: Hieu Ho*

*Enhancing Cognitive Factors in Securing WWW with CAPTCHA*

*Advisor: Wu - Security*

*Completed Fall 2011*

*Project Tawesak Jongsuksawas*

*Extended TWIGy and Tutor Writer*

*Advisor: Yoshii – Educationalsoftware*

*Completed Spring 2012*

*Thesis Chad Edmonston*

*Identification and Prediction of siRNAs in the *E.huxleyi* genome*

*Advisor: Zhang - Bioinformatics  
Completed Spring 2012*

*Project Rebecca Hunt  
Supporting Education Using a Mobile Device Interface to a Learning Management System  
Advisor: Ouyang – Educational software  
Completed Spring 2012*

*Thesis Jason Webb  
Use of Mobile Sensors to Enhance Collaborative Learning Applications  
Advisor: Ouyang – Educational software  
Completed Spring 2012*

*Project Derek Chang  
Location-Based Mobile Application to Support Interactive Learning of the Geosciences  
Advisor: Ouyang – Educational software  
Completed Spring 2012*

*Project: Patrick Kinnear  
The Deam Project Lesson Plan App  
Advisor: Ouyang – Educational software  
Completed Summer 2012*

*Project: Shanmukhi Kalapala  
Location-Based Geoscience Tutor Application for Android-based Mobile Devices  
Advisor: Ouyang - Educational software  
Completed Summer 2012*

*Project: Muhammad Awais  
Study of Transcription Factor in *Emiliana Huxleyi*  
Advisor: Ahmad Hadaegh - Bioinformatics  
Completed Summer 2012*

*Project: Srilakshmi Karthik  
Identifying and Categorizing Diseases in electronic medical records  
Advisor: Rocio Guillen – Artificial Intelligence  
Completed Fall 2012*

*Project: Laith Alhajjaj  
The DREAM Lesson Plan App for Android Platform  
Advisor: Shauninn Wu – Mobile App  
Completed Fall 2012*

*Project: Elisha Neal  
TimeLogic BLAST Algorithm Variants Performance Comparison  
Advisor: Ahmad Hadaegh - Bioinformatics  
Completed: Fall 2012*

*Project: Sabareesh Subramani*

*GPS and Compass Aided Augmented Campus Guide*

*Advisor: Youwen Ouyang – Mobile App*

*Completed: Spring 2013*

*Thesis: Sangbin Park*

*Towards An Understanding Of Biomineralization Using Comparative Transcriptomics In Three Sister Species Of Coccolithophorids*

*Advisor: Xiaoyu Zhang - Bioinformatics*

*Completed: Spring 2013*

*Thesis: Eric Bruck*

*Intelligent Tutoring System for Learning English Articles*

*Advisor: Rika Yoshii – Artificial Intelligence*

*Completed: Spring 2013*

*Thesis: Brodie Kurczynski*

*Extracting Data From Electronic Medical Records Using Information Retrieval and Co-reference Resolution*

*Advisor: Rocio Guillen – Artificial Intelligence*

*Completed: Spring 2013*

*Project: Mathew Ralston*

*An Improvement to the DREAM Lesson Plan APP on the iPad Platform with Authentication and User Enhancements*

*Advisor: Shaun-inn Wu – Mobile App*

*Completed: Spring 2013*

*Project: Sina Nejati*

*Physical Therapy with Kinect*

*Advisor: Ahmad Hadaegh*

*Completed: Spring 2013*

*Project: Nicholas Walton*

*Informing NARX Neural Networks by ARIMA Modeling*

*Advisor: Shauninn Wu – Artificial Intelligence*

*Completed: Spring 2013*

*Project Yunxi Lin*

*G.oceanica Assembly and Annotation*

*Advisor: Ahmad Hadaegh - Bioinformatics*

*Completed: Fall 2013*

*Thesis Jim Counts*

*Teaching Kids Computational Thinking with Game Design Activities*

*Advisor: Youwen Ouyang – Educational software*

*Completed: Fall 2013*

*Project Kyle Schiller*

*De novo assembly and differential expression analysis of wild-type and PPO silenced walnut*

*Advisor: Xiaoyu Zhang - Bioinformatics*  
*Completed: Spring 2014*

*Thesis: Jacquelyn Hernandez*  
*Intelligent Tutoring System for Learning English Articles by Diagrammatic Reasoning*  
*Advisor: Rika Yoshii – Artificial Intelligence*  
*Completed: Spring 2014*

*Thesis: Hui Mato*  
*Using Artificial Neural Networks Based on Algorithms for Data Analysis of Fluorescence Lifetime Imaging*  
*Advisor: Shauin-inn Wu – Artificial Intelligence*  
*Completed: Spring 2014*

*Project: Elizabeth Montes*  
*Generating Interactive Protein Structure Tutorials Using WebGL and HTML5*  
*Advisor: Xiayu Zhang – Educational software*  
*Completed: Spring 2014*

*Project: Feng Xu*  
*Genome-wide Analysis of Alternative Splicing Across Marine Algae*  
*Advisor: Ahmad Hadaegh - Bioinformatics*  
*Completed: Spring 2014*

*Project: Yi Wang*  
*Genome Assembly and Annotation of Isochrysis Galvana*  
*Advisor: Ahmad Hadaegh - Bioinformatics*  
*Completed: Spring 2014*

==== **Fall 2014** =====

*Student name: Jeremy B. Villegas*  
*Advisor name: Youwen Ouyang*  
*Is this a thesis or a project: Thesis*  
*Title: Using Video Games to Promote Computational and Algorithmic Thinking in Adolescents*

*Student name: Aarash Gharagozloo*  
*Advisor name: Youwen Ouyang*  
*Is this a thesis or a project? Project*  
*Title: Pokémon Battle Royale: An Interactive Game Design Environment for Pokémon Battles*

*Student name: Timothy Cronin*  
*Advisor name: Dr. Guillen*  
*Is this a thesis or a project? Project*  
*Title: Automation of Medical Record Risk Factor Tagging Using Machine Learning and Natural Language Processing Methods*

*Student name: Andrea Tan*

*Advisor name: Dr. Ouyang  
Is this a thesis or a project? Project  
Title: Cyber Scavenger with Sencha Touch*

*Student name: Justin Power  
Advisor name: Dr. Youwen Ouyang  
Is this a thesis or a project? Thesis.  
Title: Analysis of a Centralized Routing Controller in an Enterprise Network Environment*

*Student name: Zhuo Wang  
Advisor name: Shaun-inn Wu  
Is this a thesis or a project? Thesis  
Title: Using Neural Networks in Intrusion Detection System for Cloud Computing*

**===== Spring 2015 =====**

*Student name: Matinehalsadat Kashani Moghaddam  
Advisor name: Dr.Ahmad Hadaegh  
Is this a thesis or a project?Thesis  
Title: : Development and comparison of Linear and Non-linear (QSAR) Models to predict HIV-1 Integrase Inhibitors using Hybrid Differential Evolution-Binary Particle Swarm Optimization Algorithm*

*Student name: Christopher Karady Scripca Lucian  
Advisor name: Shaun-Inn Wu  
Is this a thesis or a project? Thesis  
Title:Optimizing and Evaluating Classifiers of a Visual Cortex based Hierarchical Model Using Differential Evolution Binary Particle Swarm Optimization*

*Student name: Richard Adrian Galvan  
Advisor name: Dr. Ahmad R. Hadaegh  
Is this a thesis or a project? Thesis  
Title: Improving pharmacological research of HIV-1 Integrase Inhibition using Differential Evolution-Binary Particle Swarm Optimization and Non-Linear Adaptive Boosting Random Forest Regression*

*Student name: Akhila Pabbaraju  
Advisor name: Dr. Youwen Ouyang  
Is this a thesis or a project? Project  
Title: ThaPal Android App - A medication alarm app to enhance medication adherence in adolescents with Thalassemia*

*Student name: Chad Davies  
Advisor name: Dr. Xiaoyu Zhang  
Is this a thesis or a project? Project  
Title: Prediction of Biomineralization Proteins Using Machine Learning Models*

*Student name: Arun Gopinath  
Advisor name: Dr. Xiaoyu Zhang  
Is this a thesis or a project?Thesis*

Title: *Comparative Gene Expression Analysis in Emiliana huxleyi, Isochrysis galbana, and Gephyrocapsa*

===== **Spring 2016** =====

Student name: *Simi Yusaff*

Advisor name: *Dr. Ahmad Hadaegh*

Is this a thesis or a project? *Thesis*

Title: *Comparison of DNA Methylation Pattern in Two Strains of Emiliana Huxleyi*

Student name: *Monali Sinha*

Advisor name: *Dr. Xiaoyu Zhang*

Is this a thesis or a project? *Thesis*

Title: *Lipid Metabolism Profile of E.huxleyi versus other Phytoplankton Species: A Comparative Study*

Student name: *Lanier Scott Castillo III*

Advisor name: *Dr. Rika Yoshii*

Is this a thesis or a project? *Project*

Title: *Interactive System for Visualization of Linked List Operations in C++*

===== **Fall 2016** =====

Student's Name: *Falguni Thakor*

Title: *Comparative Analysis of Haptophyte Proteins using Similarity Networks integrated with Gene Expression Profiles and Annotations*

Thesis

Advisor: *Dr. Xiaoyu Zhang – bioinformatics*

Student's Name: *Farzaneh Orak*

Title: *Comparative and Phylogenetic Analysis of Lipid Gene Families in Four Haptophyte Species*

Thesis

Advisor: *Dr. Xiaoyu Zhang - bioinformatics*

Student's Name: *Tiance Li*

Title: *Identify New Selenoproteins in Emiliana Huxleyi Genome*

Project

Advisor: *Dr. Ahmad R. Hadaegh – bioinformatics*

===== **Spring 2017** =====

Student name: *Andrew Brodsky*

Title: *Artificial neural networks in intrusion detection systems for cloud computing*

Thesis

Advisor: *Dr. Shaun-inn Wu*

Student name: *Sujitha Govindharajan*

Project

Title: *Study of Factors in Implementation of Virtual Reality for Developing Micro-enterprise Level Customizable Products Shopping Applications*

Advisor name: *Dr. Xin Ye*

*Student name: Mihir Kale*  
*Title: Linked List Visualizer Tutor for C++*  
*Project*  
*Advisor: Dr. Rika Yoshii*

*Student name: Yu Tian*  
*Project*  
*Title: Motif: A Social Reading Platform that Helps People to Filter, Memorize, and Organize Content Online*  
*Advisor name: Dr. Xin Ye*

*Student name: VENKAT SHIVA PANDIRI*  
*Advisor name: Dr. Xiaoyu Zhang*  
*Project*  
*Title: Machine Learning Models to Predict House Prices based on Home Features*

*Student name: Bartosh Sudak*  
*Advisor name: Dr. Xin Ye*  
*Thesis*  
*Title: Utilizing Deep Learning to Provide Question Answering*

*Student name: TANIYA ROHMETRA*  
*Advisor name: Dr. Xiaoyu Zhang*  
*Project*  
*Title: Web-based Genome Portal for Haptophytes*

### **Fall 2017**

*Student name: Jalanibhai Panchal*  
*Advisor name: Dr. Xin Ye*  
*Project*  
*Title: Virtual Reality Enhanced User Experience for Scientific Data Collection Using Mobile Device*

*Student name: Siddhartha Dembla*  
*Advisor: Dr. Youwen Ouyang*  
*Project*  
*Title: Enhancing User Experience for Cyberscavenger through User Interface Improvement and the Addition of a General Discussion Forum*

*Student name: Marshia Hashemi*  
*Advisor: Dr. Ahmad Hadaegh*  
*Thesis*  
*Title: Comparative Analysis of DNA Methylation Between Calcifying and Non-calcifying Strains of *Emillania Huxleyi**

*Student name: Pratima Penneer Selvam*  
*Advisor: Dr. Ahmad Hadaegh*  
*Project*  
*Title: Nearest Hospital Tracking and Disease Prediction*



### **Spring 2018**

*Student name: Aastha Maheshwari*  
*Advisor: Dr. Xin Ye*  
*Project*  
*Title: ENVISION (Visualization tool)*

*Student name: Abisek Pandian*  
*Advisor: Dr. Rika Yoshii*  
*Project*  
*Title: Enhanced LLVM Tutor for C++*

*Student name: Fan Fang*  
*Advisor name: Xin Ye*  
*Project*  
*Title: Application of Recurrent Neural Networks for More Accurate Bug Reports Classification*

### **Summer 2018**

*Student name: Nitesh Sabankar*  
*Advisor name: Dr. Xiaoyu Zhang*  
*Is this a thesis or a project? Project*  
*Title: Analysis of Gene Co-expression Networks of Two Coccolithophore Species*

*Student name: Laxmi Subhamkar Annapragada*  
*Advisor name: Dr. Xiaoyu Zhang*  
*Is this a thesis or a project? Project*  
*Title: Detecting Promoter sequences using Deep Learning*

### **Fall 2018**

*Student name: Emmanuel Ayuyao Castillo*  
*Advisor name: Dr. Ali Ahmadinia*  
*Is this a thesis or a project? Thesis*  
*Title: Edge Computing: An Orchestration of Devices*

### *Spring 2019*

*Student name: Christopher Erdelyi*  
*Advisor name: Dr. Xin Ye*  
*Project Title: Using Computer Vision Techniques to Play an Existing Video Game*

*Student name: John Wu*  
*Advisor name: Dr. Xin Ye*  
*Thesis Title: Application of Artificial Neural Network on Speech Signal Features for Parkinson's Disease Classification*

*Student name: Nitesh Singh Sanjay*  
*Advisor name: Dr. Ali Ahmadinia*  
*Project Title: Design and Implementation of a Deep Neural Network based Real-Time Object Detection for GoPiGo*

*Student name: Thilak Raj Soundararajan*  
*Advisor Name: Dr. Xin Ye*  
*Project Title: Prevention of Shoulder Surfing using Graphical Authentication System*