



Education

PhD., Environmental Engineering,
University of Florida, Gainesville,
ongoing

M.S., Chemistry, University of
Notre Dame, Notre Dame, 1999

M.S., Chemistry, Xiamen
University, China, 1995

B.E., Chemical Engineering,
Tsinghua University, China, 1992

License

Professional Engineer - Florida

Certification

OSHA 40 Hours Training

OSHA 8 Hours HAZWOPER
Refresher

NCCER's Construction Site Safety
Orientation

JEA Supervisor Safety Leadership

Competent Communicator -
Toastmasters International

Languages

English – Fluent

Chinese (Mandarin) – Fluent

Alpha Envirotech Consulting, Inc.

Employment History

Alpha Envirotech Consulting, Inc. – Jacksonville, Florida

President and CEO (July 2010 to Present)

Serve as President and CEO for environmental consulting services provided in US and China.

Sanford-Brown Institute

Adjunct Professor (2012 to present)

Instructor for the course entitled "Introduction to Chemistry".

Golder Associates Inc. – Jacksonville, Florida

Project Engineer to Senior Project Engineer (December 2005 to June 2010)

Serve as project manager and project engineer for large environmental remediation projects for JEA and the Florida Department of Environmental Protection (FDEP). Conducted remediation system design and modifications, construction, startup, operation and maintenance, and troubleshooting with focus on petroleum, drycleaning solvent, metals, and polychlorinated biphenyls (PCBs) cleanup.

Florida Community College at Jacksonville – Jacksonville, Florida

Adjunct Professor (2000 to 2005)

Instructor for the course entitled "Chemistry for Liberal Arts". Had full responsibility for the hybrid course from text selection, developing both on-line and in-classroom course format, providing lecture notes, lecturing both in classroom and online, administrating examinations, and class projects. Serve on the Advisory Committee for developing the Environmental Science Degree Program.

Environmental Consulting and Technology, Inc. – Jacksonville, Florida

Senior Associate Engineer (2005 to 2005)

Performed field tasks including soil and groundwater sampling, oversight of monitoring well installation, soil excavation, and tank closures. Produced NPDES permit application packages for discharge from petroleum contaminated sites and developed Discharge Monitoring Reports. Conducted remedial system design, startup, operation, and maintenance for petroleum impacted sites.

City of Jacksonville – Jacksonville, Florida

Petroleum Cleanup Site Manager (2001 to 2005)

Managed remedial and assessment phases of petroleum cleanup activities performed on ~50 petroleum cleanup sites located in Duval County, Florida. Conducted compliance inspections of soil sample collections, monitoring well

Awards

*Crane Award by First Coast
Manufacturers Association, 2009*

*Golder Associates Cooperation
2008 Innovation Award, United
States Region, 2009*

*Goal Start Award by Office of
Mayor, City of Jacksonville, 2003*

*Employee of the Quarter,
Regulatory and Environmental
Services Department, City of
Jacksonville, 2003*

installations, remedial system construction, operation, and maintenance following the EPA and State of Florida petroleum cleanup rules.

City of Jacksonville – Jacksonville, Florida

Environmental Technician (2001 to 2001)

Updated the Duval County Air Toxics Annual Report and reviewed the State of Florida required Annual Operating Reports submitted by major air pollution emitting facilities located in Jacksonville, Florida.

MGT Information, Inc. – Jacksonville, Florida

Project Manager (1999 to 2000)

Conducted market research and interviews with key management personnel at major petroleum companies. Served as lead author of the perception report of “Catalyst for Petroleum Refining in North America.”

University of Notre Dame – Notre Dame, Indiana

Teaching Assistant/Research Assistant (1996 to 1999)

Bench-top syntheses, purification, and analyses of organic compounds and air-moisture sensitive titanium (III&IV) compounds. Skilfully used spectroscopic techniques, such as AA, EPR, FTIR, GC/MS, HPLC, NMR, UV-VIS, and XRD.

PROJECT EXPERIENCE

Confidential Client
China

Project manager and project engineer for the development of a Focused Feasibility Study to evaluate the application of soil vapour extraction and chemical oxidation technologies in treating petroleum impacted vadose zone soil above an LNAPL layer, and providing instructions for the fabrication, installation, operation and maintenance (O&M) of a soil vapour extraction (SVE) system installed at the site.

JEA Pearl Street
Jacksonville, Florida

Project manager and project engineer for the development of a site-wide Feasibility Study, Interim Remedial Action Plan (IRAP) for Light Non-aqueous Phase Liquids (LNAPL) source removal, IRAP for Dense Non-aqueous Phase Liquid (DNAPL) source removal using thermal conductive heating (TCH), SVE, and multi-phase extraction (MPE) technologies, and Soil RAP consisting of source removal and capping to address site-wide soil impacts. Work elements included data management, report preparation, and management of field programs consisting of site assessment tasks, LNAPL source removal actions, a bio-stimulation groundwater pilot study by comparing the using EOS® and potassium lactate and denatured ethanol in treating chlorinated volatile organic compounds (VOCs) impacted groundwater, a six-month groundwater pilot study monitoring program, implementation of the DNAPL source removal action consisting of an SVE system, an MPE system, and a TCH system, performance of an indoor air quality investigation as part of the DNAPL remedial system monitoring, and a bench scale arsenic treatability study using EHC® in addressing arsenic impacted soil and groundwater.

The DNAPL remediation system achieved reduction of average groundwater concentrations of VOCs by approximately 97 percent and reduction of soil concentrations by nearly 100 percent comparing to baseline conditions during its first eight months of operation, meeting its active remediation goals. The use of the TCH technology in DNAPL remediation has resulted greater source reduction within a much shortened remediation time frame, and achieved significant cost savings (an estimated 50 percent) over the conventional source removal remedy. Amy Fu and her project team were awarded the 2009 Crane Award by the First Coast Manufacturers Association and 2008 Innovation Award by the Golder Associates Corporation for the successful design, construction, and operation of the DNAPL remediation system. Amy Fu and Matt McClure with JEA co-presented this project at the 2009 Florida Remediation Conference held in Orlando, Florida on October 15 – 16, 2009 and at the International Conference on Remediation of Chlorinated and Recalcitrant Compounds (Battelle Conference) held in Monterey, California on May 24 – 27, 2010 (poster presentation).

**JEA Sans Souci
Substation**
Jacksonville, Florida

Project engineer for the development of a groundwater natural attenuation trend analysis and a RAP addressing a bio-stimulation remedy in treating chlorinated VOCs impacted groundwater using 3-D Microemulsion®, supervision of the RAP implementation, and conducting evaluation of short-term and long-term effectiveness of the bioremediation.

ICA of Jacksonville
Jacksonville, Florida

Project manager and project engineer for development of a Site Assessment Workplan to address efforts required to delineate VOCs, semi-volatile organic compounds (SVOCs), PCBs, and potential metal impacts. Conducted preliminary feasibility analyses to evaluate site-specific remedial options.

**Jacksonville Waste
Control**
Jacksonville, Florida

Project manager and project engineer for the performance of site assessment and remedial actions to address petroleum impacts. Work elements included soil and groundwater investigations, Site Assessment Report (SAR) preparation, RAP development including design details for source removal, ORC Advanced® placement, and chemical oxidation injections, RAP implementation, and post remediation monitoring.

Hogan Baptist Church
Jacksonville, Florida

Project engineer for the development of a RAP consisting of an air sparging (AS) system, an SVE system, and an impervious liner system to address petroleum impacted groundwater. Produced construction drawings for the approved remedial system design.

**Island Food Store No.
139**
Jacksonville, Florida

Project manager and project engineer for the performance of site assessment to address petroleum impacted soil and groundwater. Work elements included soil and groundwater investigations, SAR preparation, and forensic studies on the age of the petroleum releases.

**Island Food Store No.
143**
Jacksonville, Florida

Project engineer for the development of a RAP consisting of a source removal with dewatering remedy to address petroleum impacted soil and groundwater.

Majik Market No. 60155
Jacksonville, Florida

Project engineer for the development of a RAP consisting of a bio-sparging system to address petroleum impacted groundwater.

Pantry Inc. No. 244
Jacksonville, Florida

Project engineer for the development of design details of a remedial system consisting of an AS system and an MPE system to address petroleum impacts.

Pantry Inc. No. 1178
Jacksonville, Florida

Project engineer for producing construction drawings of a remedial system consisting of an AS system, an MPE system, and an SVE system to address petroleum impacts.

**Sunshine Food Mart
No. 11**
St. Augustine, Florida

Project engineer for the development of a RAP consisting of an AS system and an SVE system to address petroleum impacted soil and groundwater. The site reached soil and groundwater cleanup target levels within three months of system operation.

**Sunshine Food Mart
No. 63**
Jacksonville, Florida

Project engineer for the development and implementation of a RAP consisting of a soil excavation and dewatering remedy to address petroleum impacted soil and groundwater and oversight of an underground storage tank closure prior to soil excavation.

**Multiple Sunshine
Food Marts and
Sunrise Food Marts**
Central Florida

Produced NPDES permit application packages for discharge from petroleum contaminated sites to coordinate with tank upgrade activities. Coordinated discharge monitoring events and produced Discharge Monitoring Reports (DMR).

**Concord Customer
Cleaners No. 34**
Tallahassee, Florida

Project manager and project engineer for remedial tasks including evaluation of a failing SVE system and an MPE system consisting of a liquid ring pump (LRP) to address chlorinated VOCs impacted soil and groundwater, development of a work plan for interior and exterior source removal, a RAP for SVE system modification, and design specifications for replacing the LRP system with a rotary claw pump system to improve the site-wide remedial efficiency.

**Clotheshanger
Cleaners**
Tallahassee, Florida

Project manager and project engineer for O&M activities performed on a MPE system consisting of a LRP system to address chlorinated VOCs impacted groundwater.

**Concord Customer
Cleaners No. 201**
Tallahassee, Florida

Project manager for the development of a RAP consisting of an SVE system and a bioenhancement injection program to address chlorinated VOCs impacts.

**Former Big B Cleaners
No. 31**
Tallahassee, Florida

Project manager for the development of a RAP consisting of an MPE system to address chlorinated VOCs impacts

Jet Cleaner
Jacksonville, Florida

Project engineer for the development of a RAP Modification consisting of an MPE system, an SVE system, and a pneumatic pumping system to address chlorinated VOCs impacts.

**Former Beaches
Laundry and Cleaners**
Jacksonville Beach,
Florida

Project engineer for the implementation of a RAP consisting of an SVE system and a bioenhancement injection program using potassium lactate and denatured ethanol to address chlorinated VOCs impacts.

**Former City Hall
Cleaners**
Jacksonville Beach,
Florida

Project manager and project engineer for the monitoring and evaluation of effectiveness of a bioenhancement remedy using potassium lactate in addressing chlorinated VOCs impacted groundwater, soil assessment using passive soil gas sampling and modified gas sampling (MAGS) techniques, and development of a SAR to include the comparison of the assessment results of both sampling techniques.

Amy Fu presented this bioremediation project as a platform presentation at the International Conference on Remediation of Chlorinated and Recalcitrant Compounds (Battelle Conference) held in Baltimore, Maryland on May 7 – 10, 2007, the International Conference on Environmental Science and Technology (ICEST) held in Houston, Texas on August 6-9, 2007, and the 2nd International Conference on DNAPL Characterization & Remediation held in Niagra Falls, New York on September 24 - 27, 2007.

PROFESSIONAL AFFILIATIONS

American Chemical Society

Northeast Florida Association of Environmental Professionals

American Geophysical Union

Toastmasters International

PUBLICATIONS

**Conference
Proceeding**

Amy Fu, Mark Jordana, and Matt McClure, "Thermal Conductive Heating Enhanced DNAPL Source Removal", *International Conference on Remediation of Chlorinated and Recalcitrant Compounds*, Monterey, California, May 24 – 27, 2010.

Journal Article

Amy Fu and Rick Keenan, "Bioremediation of a Former Dry Cleaner Using Potassium Lactate", *Remediation, Journal of Environmental Cleanup Costs, Technologies, and Techniques*, Summer 2008, Volume 18, Number 3 (2008), 107 - 119.

**Conference
Proceeding**

Amy Fu and Rick Keenan, "Bioremediation of a Former Dry Cleaner Using Potassium Lactate", *International Conference on Remediation of Chlorinated and Recalcitrant Compounds*, Baltimore, Maryland, May 7 – 10, 2007.

Journal articles published prior to 2007 upon request