

Curriculum Vitae

Kenny Chour

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RESEARCH INTERESTS

Human rehabilitation robotics, mechatronics, dynamic and control systems, electro-mechanical design, machine learning algorithms, artificial intelligence, embedded systems

EDUCATION

Texas A&M University (TAMU) – College Station, Texas

Jan. 2016 – Present

M.S. in Mechanical Engineering

Advisor: Dr. Pilwon Hur (Human Rehabilitation Group)

Texas A&M University (TAMU) – College Station, Texas

Fall 2011 – Aug. 2015

B.S. in Mechanical Engineering

Advisor: Christopher Bay (Senior Design)

Texas A&M University at Qatar – Study Abroad Program

Summer 2015

RESEARCH EXPERIENCE

Balance Rehabilitation using Sensory Augmentation and Skin-Stretch Feedback

Human Rehabilitation Group – Texas A&M, Dr. Pilwon Hur

Spring 2015, Summer 2015

Undergrad Research Assistant

- Helped develop a 3D CAD finger-tip device for use as a portable haptic device that induces a skin-stretch feedback in response to a signal postural sway to enhance balance
- Assisted in evaluating previously developed devices on healthy young adults through experimentation and data acquisition

Welded Pipe Cleanup and Inspection: Automatic ID Bead Scarf Removal System

Mechanical Engineering Senior Design – Tenaris (Sponsor)

Fall 2014 – Spring 2015

Electro-Mechanical Hydraulics Team

- Helped design a hydraulic system with a single double-actuating cylinder to assess scarf cutting tool's capabilities
- Also developed control program within LabVIEW to modulate the solenoid valve to actuate the cylinder
- Helped design and hands-on constructed the final system
- Presented project to instructors, Tenaris upper management, and other teams. Participated at the Engineering Showcase

Modeling and Control of a 5 DOF Robotic Manipulator, Object Relocation through Image Recognition

Senior Level Robotics course project

Spring 2014

- Helped model the WidowX robotic manipulator, and implemented analysis in Arduino code
- Implemented color vision algorithms to detect and relocate foreign objects within the camera's field of view
- Developed a user interface for controlling the WidowX using Visual Studios

Mars Habitation: Agriculture and Greenhouse Design

Texas State Grant Consortium (TSGC) Design Challenge

Fall 2011 – Spring 2011

Team leader

- TSGC is a group of 57 institutions which include universities, industrial organizations, non-profit organizations, and government agencies within Texas. Students get to participate in helping solve some of NASA's mission problems
- Created a conceptual model for an inflatable greenhouse for Martian habitation
- Received "excellence in design foundation" for demonstrating competency in design methodology
- Presented work to NASA and other attendees at Houston showcase

WORK EXPERIENCE

Neway Valve International

Summer 2015

Mech. Intern II

- Performed root-cause analysis to resolve customer issues such as gasket leaks, valve galling, corrosion, etc. Documented each and every valve quality inspection, and communicated results to management/customers
- Helped develop product and quality-related documentation for technical inquiries, applications and sales
- Directly communicated with customers to determine their unique needs and helped come up with solutions

Neway Valve International

Summer 2014

Mech. Intern I

- Created and assembled detailed 3D models of many types of valves in Solidworks, and also generated 2D drawings
- Inspected several floating ball valves for damage and helped improve the accuracy of the 2D drawings associated with them
- Used industry standards developed by API, ASME, and others to help develop quality documentations

GT Learning Academy

Summer 2013

Mathematics Tutor

- Instructed calculus and pre-calculus classes for several individual students as well as larger groups
- Responsible for developing and engaging students in an accelerated curriculum – wrote lesson plans, homework, and exams

SKILLS

Human languages: English (native), Cantonese Chinese (proficient)

Programming languages: C/C++, MATLAB/Simulink, Java,

Mechanical Design: Solidworks, AutoCAD, Inventor

Electronics Design: KiCad, LTSpice, Fritzing

IDE: Microsoft Visual Studios, Arduino IDE

Type Setting: Microsoft Office, LaTeX, Open Office

Operating Systems: Microsoft Windows, Linux (Ubuntu)

Others: familiar with machining lab (i.e. lathe, drill, press, bandsaw) and fabrication methods (i.e. soldering, welding, casting, forging)

HONORS AND AWARDS

- Billie G. EarnHeart Memorial Scholarship Fall 2014 – Spring 2015
- Dean’s Honor Roll Fall 2013
- Regent’s Scholarship Fall 2011 – Spring 2015
- Texas Top 10% Scholarship Fall 2011 – Spring 2012

LEADERSHIP AND COMMUNITY

- *President/Cofounder* – TAMU Leadership Robotics Sept. 2013 – 2015
- *Team Leader* – Texas State Grant Consortium Design Challenge Fall 2011 – Spring 2012
- *GED Tutor* – Fort Bend Literacy Council Sum. 2012, Sum. 2013
- *Volunteer* – “The Big Event” Spring ’11, ’12, ’13, ’14