

ETHAN PHAN

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SUMMARY

Honors chemical engineering student who enjoys learning new things and helping others. Consistently does well in all work and projects. Interested in energy, sustainability, and control processes. Always enthusiastic to work with a good team when needed. Open to all that engineering has to offer.

EDUCATION

- BS in Chemical Engineering
 - University of Arkansas --- Fayetteville, AR
 - GPA: 3.935
 - Expected Graduation with Honors in May 2020
- Chancellor's List --- Sp '17, Fall '17, Sp '18, Fall '18
- Chancellor's Scholarship
- Governor's Distinguished Scholarship
- Study Abroad (Spring 2019) – Newcastle, Australia

SKILLS AND ABILITIES

- Basics of MATLAB, C++
- Intermediate in Aspen/HYSYS
- Intermediate in MS Excel/Word/PPT
- Basics of HOMER Pro
- Good organizational skills
- Comprehensive written and verbal communication abilities
- Multitasking
- Proficient in Vietnamese

ENGINEERING PROJECTS

- Sustainability Project
 - Designed a microgrid using HOMER Pro that contained renewable and nonrenewable resources
 - Used two electrical loads, PV cells, lithium ion batteries, converters, and power from the grid
 - Provided a reliable, sustainable, and cost-efficient source of energy for a small town in Australia
- Hazard and Operability Study (HAZOP) on the Desulfurization Unit of an Ammonia Plant
 - Analyzed the reactor and separator of the unit in order to add various safety/controlling equipment
 - Concluded that a PLC, two PRV's, multiple temperature and pressure alarms, and control valves should be installed to better control the unit
- Coefficient of Performance (COP) vs Temperature of a 2003 Honda Pilot
 - Calculated the relationship between temperature and COP in the AC system if it used HFO-1234yf as the refrigerant instead of HFC-134a
 - Found that as ambient temperature increased from 25°C to 45°C, the COP also increased in a somewhat linear relationship from 1.095 to 6.446.
- Heating and Cooling Plant of the University of Arkansas
 - Toured the plant and observed/analyzed 10+ equipment
 - Wrote a report on the performances of multiple pieces of equipment using actual data taken from the plant and applied Carnot cycles into the calculations
- Various Engineering Problems via MS Excel
 - Solved problems related to viscosity, density, uncertainty, flow, buoyancy, energy, NPSH

WORK EXPERIENCE

- 2014-Present Fry Cook, *Taipei Chinese Restaurant (Fort Smith, AR)*
- Prepare and plate every order
 - Fry over 15 meals and assist the head chef for various meals
 - Wash the dishes

AFFILIATIONS/VOLUNTEERISM

- AICHE – American Institute of Chemical Engineers
- Omega Chi Epsilon – American Honor Society for Chemical Engineers
- Tau Beta Pi – Engineering Honor Society
- University of Arkansas Honors College
- Habitat for Humanity