

# Jing-Chen Peng

jcpeng24@gmail.com

Linkedin: jing-chen-peng | Github: mass2010chromium

## EDUCATION

### UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

STUDYING COMPUTER SCIENCE  
AND MECHANICAL ENGINEERING  
BS May 2022 | Urbana, IL  
Grainger College of Engineering  
Dean's List  
GPA: 4.0 / 4.0

## SKILLS

### PROGRAMMING

Python  
C++  
C  
Java  
Bash  
Matlab

### CAD / CAE

Solidworks  
Autodesk Inventor  
Creo  
ANSYS

## COURSEWORK

### UNDERGRADUATE

Data Structures  
Computer Architecture  
Linear Algebra  
Numerical Methods  
Multivariable Calculus  
Introductory Differential Equations

## AWARDS

Tau Beta Pi - Illinois Alpha chapter  
Dean's List - Fall 2019, Spring 2019  
Illinois Engineering Achievement  
Scholarship  
UIUC PULSE coding competition  
- 2nd place

## EXPERIENCE

### IBM | BACKEND DEVELOPER INTERN

Summer 2020 - Current

- Work with Jenkins pipelines and shell script to automate performance tests
- Wrote and updated scripts in Python, Groovy, and shell script
- Worked with the OpenShift container platform

### UNDERGRADUATE COURSE ASSISTANT

University of Illinois at Urbana-Champaign

Spring 2020 - Current

- Help students learn basic computer architecture concepts in office hours
- Work on developing the course final project

### UNDERGRADUATE RESEARCH ASSISTANT

University of Illinois at Urbana-Champaign

Winter 2020 - Spring 2020 | Python

- Wrote code to generate Burger's equation problems and solve them
- Used a neural network (PyTorch) to predict if the solver would crash

### FINISAR | MECHANICAL DESIGN INTERN

Summer 2019 | Fremont, CA

- Used ANSYS Mechanical to perform analyses of fiber optic transceiver modules under static, dynamic, and thermal loads
- Wrote python scripts to improve automation and result post-processing

## PROJECTS

### MINI MIPS COMPILER

Fall 2019 | Python/MIPS assembly

- Wrote a script to help generate MIPS assembly from "pseudo-MIPS"
- Implemented features: array syntax, saved register handling, arithmetic, imports, #define
- Used recursive descent to parse arbitrary math expressions.

### AUTO COURSE PLANNER

Fall 2018 | Java

- Command-line tool for generating course schedules
- Implemented a smart brute force algorithm inspired by simulated annealing to find the local minimum of a highly nonlinear and discontinuous function
- Helped me make my four-year plan to fill all requirements from CS and ME

## EXTRACURRICULARS

### ILLINI FORMULA ELECTRIC | TEAM MEMBER

August 2018 to Spring 2020

- Led experiments in using latch clamping force to waterproof containers
- Optimized 4-bar linkage design by using Matlab code to find optimal pivot placements and lever lengths
- Designed new differential mount with improved adjustability