

Hao Massimo Chen

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WORK EXPERIENCE

New Jersey Institute of Technology - Undergraduate Research Assistant - NASA Living with Star (LWS)

January 2020 - current Newark, NJ

- Process FITS data using programming language IDL, analyze/sort the quality of each set, and track/mark data with noises. Lead improvement in productivity (increased 28.57% weekly data processed).
- Built a Python program for AIA data processing. The program takes a dataset, converts it to a movie, and shows the interested region of the solar disk. Used the Python libraries SunPy, Matplotlib, Astropy, NumPy, IPython, and AiaPy.
- Researched and tracked potential programming solutions.
- Seasonal presentation on new tasks and jobs, and weekly report about progress to the project team.

PROJECTS

[Simple Shop Website](#) - Creator

October 2021 - December 2021

- Built a full stack web app of a simple online shop where users can register and login from their account, add the products to cart, purchase them, and also rate them. The administrator account can access, add, and delete products, and give different accessibility to users. The website is hosted on Heroku.
- Manage data in the database across different tables using SQL (mySql).
- Developed the website using PHP, JavaScript, SQL, HTML, CSS, and Bootstrap (some features).

[Compiler of a Fortran-based Language](#) - Creator

March 2021 - May 2021

- Built a complete compiler of a simple Fortran-based language using C++ from scratch. The program contains a Lexical Analyzer and a Parser. The Fortran-based language can do most common instructions that other programming languages have, but using a much simpler syntax. The compiler also handles any type of errors.

[Background Getter](#) - Creator

October 2020 - November 2020

- Wrote a Java program that will output an image of the background without the “noises” that the input files have.

EDUCATION

New Jersey Institute of Technology - B.S., Computer Science

September 2019 - May 2023, GPA: 3.94

Newark, NJ

Awards: NJIT Academic Scholar Award; The National Society of Collegiate Scholars (NSCS)

Relevant courses: Data Structures; Algorithms; Intensive Programming in Linux; Internet Applications; Programming Language Concepts; Database System Design & Management; Principles of Operating Systems; Intro to Computer Systems.

SKILLS

Technical

Java; C++/C; Python ; JavaScript; HTML/ CSS; SQL ; IDL; Git / GitHub

Non-Technical

Trilingual (fluent in Italian, Chinese, English. Knowledge of Spanish); Teamwork; Time management; Problem Solving; Creative Thinking.