

CODY NHAN PHAM

437 E. Cherry | Springfield, MO 65806 | (417) 450-2393 | contact@codynhanpham.com

EDUCATION

Bachelor of Science in Microbiology and Biotechnology

Expected Graduation: May 2023

Missouri State University – Springfield, MO

- GPA 3.84/4.00
- International Leadership Scholarship (2019-2023)
- Dean's List for all attended semesters
- Expected graduation in Spring 2023

LABORATORY EXPERIENCE

Undergraduate Research Assistant

April 2021-present

Missouri State University – Springfield, MO

- Investigated toxicological effects of engineered Ag and Zn nanomaterials on 2 model plant species (*Arabidopsis thaliana* and *Brassica napus*) to reveal potential environmental impacts and inform nanomaterial safety regulations.
- Conducted total RNA extraction, RNA-seq analysis, and qPCR validation for differential gene expression using the Bioinformatics software CLC Genomics Workbench, identifying 380+ differentially expressed genes.
- Performed 3 independent Inductively Coupled Plasma Mass Spectrometry (ICP-MS) analyses over 4 months to accurately determine the amount of metal uptake by plants, providing data for understanding metal toxicity in plants and their potential for phytoremediation.
- Developed general-purpose automation scripts that accelerated the Data Analysis pipelines by over 8 times, significantly reducing data processing time and labor costs.
- Extracted and quantified plant's total chlorophyll concentration with spectrophotometry, and did Statistical Analysis and graphing using R.
- Designed and created 40+ hydroponics growing pots and optimized a hydroponics planting protocol for future experiments.

ADDITIONAL WORK EXPERIENCE

Customer Service

October 2020-March 2021

Compass Group USA – Springfield, MO

- Operated POS cash register, handling 300 transactions per shift on average.
- Compiled and managed reports and records.

Content Writer

September 2017-April 2019

Help Heal Share Organization HHSO – Ho Chi Minh City, Vietnam

- Compiled social media posts to appeal to public attention to non-profit charity activities, scored an average reach of around 2500 accounts.
- Designed advertising posters for social media and public events.
- Organized charity events that involved up to 50 volunteers, providing patient care, and about 700 free-meal portions per event at various hospitals.

ADDITIONAL SKILLS

NodeJS

R and R Studio

Python

MongoDB (NoSQL)

GraphPad Prism

HTML/CSS/JS

AutoCAD Fusion 360

CLC Genomics Workbench

Galaxy