# Liang Guo Espland

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https://github.com/happycoding47

Looking to work as a full stack or back end Softwear Engineer. No sponsorship needed.

## Skills

Programming: Python, Java, Javascript, HTML, CSS, SQL, R

Tools: Flask, Django, Git, GitHub, AWS, React.js, Node.js, Postman, Docker, Heroku, MySQL

Databases: SQLite, PostgreSQL, MongoDB

#### **Projects**

#### A personal portfolio website with several functional web applications (link here)

- Created a Todo List manager website where users can create accounts with Django
- Connected with a database and deploy

## A resource-based, production-ready REST API including authentication, deployments, databases.

- Used python and Flask to creat a REST API and used Flask-JWT for secure user registration and authentication
- Used SQLAlchemy to efficiently store resources to a SQLite database
- Deployed to Heroku and tested with Postman

#### A data analysis and visualization application that processes thousands of data records

• Developed an application to help analyse high throughput sequencing data generated from complicated biomedical experiments, using Python, Java, and R, led to a publication on a top journal (Impact factor 19.16)

## Professional and Community Experience

- Member of MilSpouse Coders, 2020 to present
  - o organized study groups and discussions; participated in code reviews
- Self-learning programming enthusiast, 2019 to present
  - obtained certificates for online courses, such as The Python Mega Course: Build 10 Real World Applications, Django3 Full Stack Websites with Python Web Development, The Structure and Interpretation of Computer Programs, etc.
  - Oracle Certified Associate, Java SE8 Programmer
- Speaker at national and international conferences, such as Federation of American Societies for Experimental Biology Science Research Conference (Arizona, 2018), the Annual International Congress of Genetics (China, 2017), the 19th and 21st Annual RNA society Meeting (Canada, 2014 and Japan, 2016)
- Wrote and published 6 manuscripts on top journals, including Nucleic Acids Research, PLoS One, Future Virology, RNA etc.
- The Economic Development Fellows Consulting Program, University of Minnesota, 2018
  - O Used python to write a program that scrapes data from websites containing labor statistics and provide advices

#### **Education and Scholarships**

#### University of Washington, Software Development & Design Essentials Certificate Program

2021

- My Career Advancement Account Scholarship, Department of Defense, US gov
- Operation Jump Start Scholarship, Monterey Bay Military Spouse Club

University of Minnesota, Ph. D. in Molecular Biology, Immunology and Virology (GPA 3.8/4.0)

2012 - 2018

• Institute for Molecular Virology Training Program fellowship, National Institute of Health, three consecutive years

## China Agricultural University, Bachelor of Science (GPA 3.8/4.0)

2006 - 2011

National Scholarship (Top 1%), China gov, three consecutive years