Permanent Address:
Xiangjiangyue Unit 2 1701,
Harbin, Heilongjiang, China

# YUANZHAN GAO

yg8ch@virginia.edu
(+1) 540-618-0766

Current Address:
067 Weedon
22904, Charlottesville, VA

## Education

**University of Virginia,** Charlottesville, VA                                              **August 2020 – June 2024**
**Computer Science & Economics (Financial Concentration) Double Major**
- GPA: 3.93/4.0
- Echols Scholar
- Relevant Courses: Software Development Techniques, Advanced Software Development, Machine Learning, Econometrics

## Experience

**Economics Department - University of Virginia,** Charlottesville, Virginia
Undergraduate Economics Research Assistant                                          **December 2022 – Present**
- Used a combination of Python's *Geopandas*, *Shapely, PyModis* packages to reversely compute NASA Modis dataset's pixel geographical coordinate, automatically retrieve and process NASA satellite data within the designated time interval, and classify pixel values by regions
- Used TFIDF (Term Frequency Inverse Document Frequency) vectorizer and sparse matrix multiplication (*sparse_dot_topn* package) techniques with the *rapidFuzz* package to perform efficient fuzzy matchings and record linkages between big datasets
- Performed data cleansing and feature engineering using *Pandas* and *Numpy*
- Constructed academic-style plots and tables in Latex using *Matplotlib* and *Seaborn*

**Computer Science Department – University of Virginia**                                    **Jan 2023 –Present**
Undergraduate Teaching Assistant – Advanced Software Development
- Held weekly Office Hours to help students resolve Django-related problems with the semester-long software development project
- Served as the supervisor of 2 students-formed SDE teams to monitor their software development progresses and provide assistances

**A1 Language,** Alexandria, VA                                                            **May 2022 - July 2022**
Research and Business Plan Development Intern
- Conducted business development research and language education market research by summarizing and synthesizing 50+ online sources and 25+ virtual interviews with potential clients
- Offered recommendations to 2 board members and CEO on strategic business development and pricing models by analyzed for-profit and nonprofit business models and operational strategies in a 45-page report
- Communicated and collaborated with 8 interns in 4 cross-functional teams using project management tools such as a Gantt Charts, project charter, project closeout report, and Google Workspace
- Drafted a multi-page business plan, a value proposition canvas, and a lean business canvas in a team setting

**Taiping Asset Management Limited**
Information Technology Research and Development Intern                                 **June 2022 - August 2022**
- Conducted research into history of the applications of Machine Learning algorithms in the asset management industry
- Conducted research into feasible strategies of implementing ML models into existing services and products and performed cost-benefit analysis to evaluate potential approaches
- Applied traditional classification Machine Learning algorithms (SVM, Random Forest) on historical market data to study financial market trends
- Applied Bayesian Learning Algorithm to forecast market behaviors and adjust investment portfolios
- Drafted a 20-page written report (in Chinese) and presented the findings within the IT Department

## Skills

- Intermediate proficiency in Data Analysis and Machine Learning with Python and STATA
- Intermediate proficiency in Web Software Development with Python's *Django* Framework, and familiar with front-end languages such as HTML, CSS, JavaScript (including jQuery)