

John Gilbert

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jg-apps.com

Education

M.S., Computer Science and Information Engineering, *National Taiwan University* 2019–2022
B.S., Chemistry, Minors in Mathematics & Economics, *University of Vermont* 2012–2016

Experience

Researcher, *National Taiwan University* 2019–2021
- Currently Developing Defenses against Poisoning Attacks on Distributed AI Systems
- Trained Machine Learning Models to Make Predictions from Medical Data

Software Developer, *Freelance* 2018–2019
- Developed Backend Modules & Frontend Templates with CRUD Functionality using Django
- Implemented Payment Methods with Django-Paypal API & Automated Email Responses for Forms

Quality Control Chemist, *Mylan* 2017–2018
- Prepared Solutions for Analytical Testing by HPLC and GC & Performed Inventory Assessment
- Followed Standard Operating Procedures (SOPs), Observed Regulations & Safety Practices (GxP)

Research Analyst, *Converseon, Inc.* 2016
- Conducted Data Cleaning & Analysis on Chinese Consumer Media for Johnson & Johnson

Skills

Programming: Python (*Tensorflow, Pytorch, Pandas, Numpy, Sklearn, Numba, Cython, Django*), C, C++, Javascript / Typescript (*React*), Node.js, HTML, CSS (*Sass*), Julia

Utilities: AWS, GCP, Bash, Git, Vim, VS Code, Jupyter, MS Office
OS: macOS, Ubuntu Linux, Windows 10

Languages: English (*Native*), Mandarin (*Fluent*), Spanish (*Advanced*)

Chemistry: NMR, FT-IR, GC-MS, LC-MS, ICP-OES, UV-Vis, Chromatography

Projects (<https://github.com/johngilbert2000>)

- AI Defense: Denoised adversarial attack images with autoencoders 2020
- Nested Lookahead Optimizer: A custom Pytorch optimizer based on Lookahead 2020
- User-Space Scheduler: A simulated scheduler in C involving custom Linux syscalls 2020
- Portfolio Website: Website made with React, Sass, and Typescript 2020
- Sentiment140 Analysis: Trained Fastai & TF2 NLP models on 1.6 million tweets 2019
- Bioinformatics Paper Implementation: Used TF2 to classify bacteriocin AA sequences 2019

Awards

Woodworth Prize in Chemistry: Grant Issued for Scientific Research 2015