

GARY IP

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gippoo.github.io

Experience

Irvington High School — Math Teacher

2014-Present

- Communicated ideas from technical topics in mathematics to students in a clear and effective manner resulting in improved understanding.
- Increased student exposure to spreadsheet usage and coding by creating an Excel/Google Sheets unit. Students gained experience working with large datasets and applying formulas to process the data. Reactions were overall positive and some students considered exploring programming more.
- Guided statistics students on research projects. Students learned how to come up with a statistical question, collect data, analyze the data, and present their findings.

eCosway — Accounts Receivable Supervisor

2011-2012

- Posted financial transactions, resolved discrepancies, and processed refunds.
 - Set up a data pipeline for automated creation of discrepancy reports. This resulted in saving a huge amount of time and scaled well as the company opened more stores.
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Projects

Blindness Detection

- Used transfer learning with Keras to build a classifier designed to determine the severity of diabetic retinopathy in retina images.
- Utilized data augmentation on images to improve accuracy.

AI Composed Music

- Converted midi files into piano roll matrix data in order to train a neural network based on autoencoder architecture. The model can "compose" music in the likeness of anime songs.
- Samples of generated songs can be found at gippoo.github.io/music

Toxic Comment Classification

- Used NLP techniques on a dataset of comments posted online to train a Naive Bayes classifier to determine whether such comments are toxic or not.
 - The model obtained 85% accuracy on a test set of comments and can be used as a means of anti-cyberbullying in products.
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Skills

Data Science: pandas, matplotlib (seaborn), Jupyter Notebook, SQL, Excel

Machine Learning: scikit-learn, TensorFlow (Keras), NLTK

Programming: Python, JavaScript, HTML, CSS

Education

San Jose State University // Mathematics Teaching Credential // 2013-2014

University of California, Irvine // Bachelor of Arts // Business Economics // 2007-2010