John Kitaoka

jkitaoka@wisc.edu — johnkitaoka.com — linkedin.com/in/johnkitaoka

Technical Skills

Languages: Python, Java, SQL, C **Tools**: Django, Jupyter, MySQL, matplotlib, jQuery, scikit-learn

Education

- **University of Wisconsin-Madison** Madison, Wisconsin
  B.S., Computer Science, B.B.A., Finance, Investment, & Banking, B.B.A., Information Systems *GPA: 4.0/4.0; May 2021*
  - **Extracurriculars**: UW-Madison Men's Water Polo; Association for Computing Machinery, Student Chapter; Capital Management Club; MadHacks

Experience

- **University of Wisconsin-Madison** Madison, Wisconsin
  Teaching Assistant *Aug. 2019 - Present*
  - Held office hours and labs for CS301 - Data Programming I
  - Utilized Google Forms API to develop partner-matching algorithm
- **University of Wisconsin-Madison** Madison, Wisconsin
  Data Science Research Assistant *May 2019 - Present*
  - Worked under SCDIS in collaboration with the city of Madison, Wisconsin, for research on existing multi-million dollar traffic engineering budget and proposed BRT transit system
  - Optimized proposed traffic routing in downtown Madison with scikit-learn supervised learning models and matplotlib visualization, additional case analysis of user density using vector quantization via k-means clustering
  - Technologies Used: Java, SQL, scikit-learn, matplotlib, Pandas
- **Geotek, Inc.** Stewartville, Minnesota
  Data Analytics Intern *May 2019 - Aug. 2019*
  - Developed metrics calculation software to analyze factory production and efficiency, real-time generation and retrieval of expense reports from SQL databases with Python and batch scripting
  - Built internal site using Bootstrap jQuery, Ajax libraries hosted through company servers
  - Technologies Used: Python, SQL, Visual Basic, jQuery, JavaScript

Projects

- **Jetpack Joyride Neuro-Evolutionary AI**
  Personal Project *Sep. 2019*
  - Utilized NEAT-Python to generate an evolving arbitrary neural network to learn to play Jetpack Joyride
  - Tanh-based fitness function to simulate random character actions for twenty genomes per generation in accelerating randomly-generated environment
  - Activation algorithm to apply fitness function data towards movements and strategies to survive as long as possible, Pickle implementation to pass down favorable genomes
- **Django Stock Market Viewer**
  Personal Project *Aug. 2019*
  - Bootstrap Native with Django framework to search and track real-time share prices on NASDAQ
  - Ticker search algorithm, customizable home page for individual user accounts
- **VAC-Calculation Algorithm**
  Intern Project, Geotek, Inc. *Jul. 2019*
  - Dynamic search algorithm designed to calculate accurate prices of labor and materials to fit a customization-based sales model for a manufacturing company
  - Efficient parsing of remote SQL databases, interfaced file inputs to a Tkinter GUI for greater accessibility
  - Currently used to track company expenses, providing real-time costs to improve overall expense accuracy by 35.6%