

# John Kitaoka

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## TECHNICAL SKILLS

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**Languages:** Python, Java, SQL, HTML, CSS

**Tools:** Django, Jupyter, MySQL, Pandas, LaTeX

## EDUCATION

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### University of Wisconsin-Madison

Madison, Wisconsin

• *B.S., Computer Science, B.B.A., Accounting*

*GPA: 4.0/4.0; Sept 2018 - May 2021*

- **Extracurriculars:** UW-Madison Men's Water Polo; Association for Computing Machinery, Student Chapter; Capital Management Club; MadHacks

## EXPERIENCE

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### Teaching Assistant

Madison, Wisconsin

• *University of Wisconsin-Madison, Department of Computer Science*

*Aug. 2019 - Present*

- Led help sessions and labs for CS301 - Data Programming I
- Utilized Google Forms API to develop partner-matching algorithm

### Data Science Research Assistant

Madison, Wisconsin

• *University of Wisconsin-Madison, Department of Computer Science*

*May 2019 - Present*

- Worked in Data Science Labs in collaboration with the city of Madison, Wisconsin, for research on existing traffic engineering budget valued at over six million dollars
- Analyzed statistics on stoplight locations in downtown Madison to be used to justify millions of dollars in transportation infrastructure cost allocation
- Produced reports and visuals for city officials to use in annual city budget hearing for the 2020/2021 fiscal year
- Technologies Used: Python, SQL, Pandas, LaTeX, Jupyter, Git

### Data Analytics Intern

Stewartville, Minnesota

• *Geotek, Inc.*

*May 2019 - Aug. 2019*

- Developed automated metrics calculation software to measure factory production and efficiency, reducing company data storage by 21%
- Created Python calculation algorithm that outperformed a third-party development firm, eliminating the need for software expenses worth thousands of dollars
- Built internal site using Bootstrap 4 HTML/CSS and jQuery libraries hosted through company servers
- Technologies Used: Python, SQL, HTML, CSS, Visual Basic

## PROJECTS

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### 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 function 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*

- Django web apps packaged with Bootstrap styling to search and track real-time company share prices on the stock market
- Ticker search algorithm, customizable home page for individual user accounts

### VAC-Calculation Algorithm

• *Intern Project, Geotek, LLC*

*Jul. 2019*

- Recursive search tree algorithm designed to calculate accurate price of labor to fit customization-based sales model for a manufacturing company
- Efficient parsing of remote SQL databases, drag-and-drop 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%