

# Branislav Kesic

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## Education

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### University of Central Florida

*Bachelor of Science in Computational Mathematics*

Orlando, FL

Dec 2022

#### Relevant Courses:

Computer Science 2, Linear Algebra, Advanced Calculus, Differential Equations 2, Statistical Theory, Mathematics in Machine Learning, Machine Learning Algorithms, Numerical Methods, Cryptography, Abstract Algebra, Differential Geometry, Nonlinear Dynamics, Physics 2

#### Extracurricular:

- Mathematical Modeling Competition (MCM 2020) Problem D – Successful Participant Feb 2020
- AI @ UCF Club (Projects / Research) Jan 2020-May 2022

## Professional Experience

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### Decentralized Foundation (DEFO)

*Data Analyst*

Jan 2022-

Dec 2022

- Developed token economics and mechanics for a Web3 decentralized finance protocol
- Researched web3 technology and related cutting edge topics
- Used Python to build simulations into dashboards for parameter optimization and visualization
- Modeled price action, sustainability, returns, and other results algebraically and computationally

## Projects

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### Resale Tool using Feature Extraction with NLP

Jun 2022-

Aug 2022

- Python tool which scrapes PC listings from online marketplaces using the Selenium package
- Specific computer features are extracted using NLP with pandas and scikitlearn
- Financial metrics are calculated from observed results, and used to determine whether a particular listing is worth investing in, along with expected profits from those investments

### Marketplace Automation Tool

- Python tool which automates tasks related to online marketplaces, such as listing, deleting, updating, and bidding, using selenium, playwright, pyautogui, beautifulsoup, and appium packages on web and mobile applications
- A web app was built to connect these tools to a user interface using Django with html and css

Dec 2021-

Feb 2022

### Support Vector Machine from Scratch

- A python implementation of the Support Vector Classifier algorithm and Principle Component Analysis using only the numpy package for numerical computation
- A dashboard was built using pyplot Dash framework in order to visualize results, change parameters, easily upload arbitrary datasets, and visualize the model during training

Nov 2021-

Dec 2021

### Algorithmic Blockchain Trader

- A python tool which used Web3.py to connect directly to the blockchain, and access various decentralized exchanges such as Uniswap to gather real time financial market data
- Trading algorithms are built directly into the script to make long and short decisions based on observed patterns and statistical methods

July 2021-

Aug 2021

### API Driven OSRS Bot (Corrupted Gauntlet)

- A java program that injects into a gaming client to perform automation of a nontrivial task based on procedural possibilities in a time restrained environment

Dec 2020-

Present

## Skills

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**Programming:** Python, SQL, Matlab, Java, C, HTML, CSS, Javascript, Solidity

**Operating Systems:** Linux, Windows

**Other:** Excel, Github, LATEX, Jupyter Notebooks, Office Tools