

Nikola Andric

35 Canyon Ct., St. Charles, MO 63303, United States

(239) 564-9060 ○ nikolazeljkoandric@gmail.com ○ LinkedIn: <https://www.linkedin.com/in/nikola-andric-128597179/>

GitHub Repository: <https://github.com/NikolaAndro>

OBJECTIVE

To earn an internship position in the field of data science, machine learning or artificial intelligence

EDUCATION

	Graduation Year
Missouri University of Science & Technology Master of Science, Computer Science	December 2023 GPA: 4.0/4.0
Missouri University of Science & Technology Bachelor of Science, Computer Science	May 2021 GPA: 3.98/4.0
Vincennes University Associate in Science, General Studies	May 2018 GPA: 4.0/4.0

SKILLS

Key Skills:

Data Visualization, Data Collection & Analysis, Data Mining, ML Model Development & Enhancement, ML Algorithms Clustering & Classification, Predictive Analysis, Statistical Modelling, Big Data Management

Technical Skills:

Tools: Python, C++, Scala, R, SQL, MySQL, Weka, AWS, Git, Hadoop, MapReduce, Spark, ROS
Packages: Scikit-Learn, NumPy, Pandas, PyTorch, Matplotlib, Jupyter Notebook
Speaking Languages: English, Spanish, Serbian, German

RELEVANT EXPERIENCE

Computer Science Department, Missouri S&T Graduate Teaching Assistant-Python (CS1500)	Rolla, MO August 2021 – Present
<ul style="list-style-type: none">Improved lecturing by creating innovative and detailed lesson plans on course material to increase student's learningConducted additional Python lab sessions resulting in 10 % increase of the general course completion	
CPHS (Cyber Physical Human Systems) Lab, Missouri S&T Graduate Research Assistant	Rolla, MO May 2020 – Present
<ul style="list-style-type: none">Applied Resnet18 Neural Network to create models for self-driving jet-bot lane following by applying computer visionStructurally and sequentially collected data for Resnet18 input resulting in better models after each additional collectionAnalyzed different Resnet18 models originated from different amount of input images to gain insight in models' defectsCompared two state-of-the-art taxi dispatch algorithms in Multi-Agent Transport Simulator (MATSim) consisting of Java based DynAgent package in terms of service latency and number of ride requestsImplemented a hybrid traffic network in MATSim with regular cars and ride-sharing vehicles (DynAgent class) to emulate real-world transportation systems, and validate the performance of the above two dispatch algorithms for ride-sharing vehicles	
Member – Mars Rover Design Team, Missouri S&T	August 2019 – January 2020
<ul style="list-style-type: none">Boosted the GUI of the Mars rover software (Red) resulting in tree additional camera screens after converting the software into a vertical orientation using Figma tool.Launched new version of the Red software by developing a task and a sub-task selection menu inside the task timer, alarm progress bar based on colors, and settings option in C# and XAML	

Engineering Intern

June 2019 – July 2019

- Developed drivers in C language for SPI communication between printed circuit boards in a 360 deg. self-rotating camera stand
- Designed a touch screen **calculator** by applying Polish notation algorithm in C++

SELECTED PROJECTS

- Big Data Management – Implemented two PageRank programs using Hadoop MapReduce and Spark, which assigns each webpage with a PageRank value, number of webpages pointing to a given webpage, and number of webpages that are being pointed by a given webpage in order to present 500 the most popular webpages and make execution time around 100 times by going from MapReduce to Spark.
- Chess AI and Pacman – Coded Depth First Search, Breadth First Search, Uniform Cost Search, Greedy Search, and A* Tree Search in Chess AI and Pacman game using Python to improve efficiency and recognize improvements in run time.
- Game of Go – Implemented Monte Carlo Tree Search algorithm in C++ to search for the best possible position of the next move for final goal of winning the game.
- Water Quality Prediction – Developed and compared multiple models for water quality prediction based on water parameters.

SELECTED COURSEWORK, CERTIFICATES & HONORS

- Courses: Artificial Intelligence, Analysis of Algorithms, Cloud Computing and Big Data Management, Data Mining, Database Systems, Data Structures, Math of Machine Learning, Mathematical Programming
- Certificates: Multivariate Calculus and Principal Component Analysis for Machine Learning
- Missouri S&T Scholar-Athlete Award for academic excellence
- 3rd place at undergraduate research competition – Humanities and Political Sciences
- Missouri S&T dean's list for outstanding academic achievement 2018, 2019 and 2020

EXTRA-CURRICULAR ACTIVITIES

- **Residential Assistant** - Secured physical and mental well-being, as well as smooth transition and comfort of the campus students by organizing and coordinating diverse activities according to university guidelines and students' individual plans
- **Campus Security Officer** – Ensured campus security, physical safety & conformity to regulations by means of hyper-awareness, active surveillance, proper availability & adequate emergency action
- **Guitar Player** – **played at** multiple international charity-, culture- and tradition-promoting festivals
- **Basketball player** – represented Vincennes University and Missouri S&T by playing college basketball