Pascal Adhikary

https://padhikary.me/ (224)-520-2930
https://github.com/pascaladhikary adhikary.pascal@gmail.com

EDUCATION

University of Illinois at Urbana-Champaign **Expected May 2023**
B.S. Computer Science, Minor in Business, Minor in Mathematics GPA 4.0/4.0

- Relevant Coursework: Data Structures & Algorithms, Computer Architecture, Discrete Structures, Software Design Studio, Object Oriented Programming, Linear Algebra, Discrete Mathematics, Calculus 3
- Activites & Honors: Alpha Kappa Psi Professional Business Fraternity, Dean's List, James Scholar Honors

EXPERIENCE

Capital One, Chicago, IL, *Machine Learning Intern* **June '21 – Present**

- Engineered unsupervised machine learning methods for dynamically extracting fine-grained keyphrases within a corpus, implementing graph based and statistical language models for analyst use (*conda, pyTorch*)
- Adapted multiprocessing and parallelization to accelerate and streamline natural language processing parsing, improving speeds by up to 400%, eliminating bottlenecks at production scale (*AWS EC2, joblib, spaCy*)
- Integrated bidirectional encoder representation from transformers (*BERT, HuggingFace*) to cluster keyphrases considering topical similarity, lexical variation within emerging trends, eliminating noise in extracted sentiment

University of Illinois Disruption Lab, Champaign, IL, *Student Researcher* **Aug '21 – May '21**

- Implemented propensity scoring via machine learning modeling to predict course enrollment for the Gies iMBA program, spearheading automation implementation to reduce wasted class allocation by up to 75% (*Python)*
- Built a fraud-proof, full-stack decentralized supply-chain simulator, writing smart contracts atop the Ethereum blockchain to be implemented in classes at the Gies College of Business (*Truffle, Ganache, Metamask, Web3.js)*

Northwestern University, Chicago, IL, *Data Science Intern* **May '19 – June '20**

- Designed algorithms to minimize effective resistance in the Multi-commodity flow problem via simulating mathematical models and end-behavior experimentation through variable analysis (*Python)*
- Optimized consumer advertising prices in the multi-node network considering uncertainty via implementation of advanced data structures, data integration, analyses, and cleaning (*numPy, pandas, Matplotlib*)

Radiant Crypto Consulting, Chicago, IL, *Trading Analyst Intern* **June '18 – Aug '18**

- Deployed, developed, and back tested cryptocurrency and stock market trade algorithms in Python via QuantConnect i.e. Arbitrage, VWAP, TWAP, POV surpassing annual market return by up to 10%
- Directed creation of prospectus for clients on consensus mechanisms, volatility, sustainability of cryptocurrencies
- Designed and implemented crypto tokens via ERC-20 smart contracts in decentralized applications (*DApps*)

SKILLS

Programming Languages: Java, Python, C++, Solidity SQL, PHP, HTML, Javascript, CSS
Tools: AWS**,** Node.js, Git, Conda, NumPy, Pandas, Matplotlib, Scikit-Learn, PyTorch, Bash, Bootstrap, Android

PROJECTS

Brokerr

- Formulated a full-stack, dynamically scalable social network application of motivation in which money is bet on a personal goal and if not achieved, is donated to charity of choice (*React, Node,js, Firebase)*

Visionary

- Collaborated to create a mobile application which translates any image to speech for the visually impaired user as part of University of Waterloo's Hack the North 2019 (*Kotlin, XML, Firebase, Google Cloud API)*

Scheduler (1st Place Overall Project) HackTogether 2019

- Implemented the priority-based scheduling algorithm used in CPU processes into a homework multitasking tool for students and created a web application (*Python, Flask, Javascript*)