Akhil Krishna Mohan

☎ +1 (410) 596-2387
✉ akhil2@illinois.edu
⌨ https://www.github.com/nimberledge
in https://www.linkedin.com/in/akhil-krishna-m-a308a8131/
Last updated on: Mar 1, 2021.

EDUCATION

AUG 2017 - MAY 2021	**B.S Mathematics & Computer Science** Department of Computer Science *University of Illinois Urbana-Champaign*
GRADE-POINT AVERAGE	3.31

PROJECTS

Junto

Worked with Prof. Mariana Silva to build a tool to allot senior design teams for final year students based on student preference. Implemented a genetic algorithm to solve the maximization problem, and made the program accessible by building a web-app. Researched, optimized, and parallelized a backend server capable of efficient processing. Co-authored a paper to document the efficacy of the approach used.

GAIME

Led a team to develop a system of generalized board game AI, via a library of functions that allows a user to make games and add AI with minimal effort. Researched, studied, modified, and implemented several AI algorithms such as Minimax (with alpha-beta pruning) and Monte Carlo Tree Search.

WORK EXPERIENCE

JUNE 2019 – AUG 2019 (FT)

Waterline Data
Software Engineering Intern

Working with a Machine Learning-based data catalog, to manage and process big data. Creating a fast, robust query engine for the said software. Increasing the productivity of the catalog by parallelizing and optimizing large tasks. Creating additional external tools to help clients receive and visualize additional information about the data in the catalog.

JAN 2019 – MAY 2019, JAN 2020 – (PT)

University of Illinois
Course Assistant

Course assistant on Software Design and Numerical Methods. Leading weekly code reviews for a group of students, allowing them to learn and improve from their mistakes. Developing software and assesments for the course. Helping students one-on-one with niche coding problems.

MAY 2017 – AUGUST 2017 (FT)

SM Netserv Technologies
Language Processing (NLP) Researcher/Developer

Used Machine Learning and Data Science to create a sentence-chunking algorithm, linking sentences talking about the same subject. Created an original sentiment engine using a self-designed algorithm based on Valence Aware Dictionary and SEntiment Reasoner (VADER). Scraped, corrected and made inferences from social media text data (Twitter, Facebook, Reddit).

RESEARCH

PUBLICATION	*Introducing* `junto`*, a Web Tool to Build Project Teams based on a Bidding Strategy* American Society for Engineering Education 2020
POSTER	Poster at PURE Research symposium (Best Presentation Award, May 2018)

TECHNICAL SKILLS

LANGUAGES	Python, C, Bash, Java, C++, LaTeX, Ocaml, LISP, FSharp, Javascript
LIBRARIES	Flask, ExpressJs, OpenFrameworks, Cython, multiprocessing, threading, pytorch, SpaCy, TextBlob, nltk, bs4, matplotlib, graphviz, scipy, numpy
SOFTWARE	Apache Hadoop, Solr, Spark, Hive, Docker, MySQL

COURSEWORK

Abstract Linear Algebra	Probability Theory
Discrete Mathematics	Real Analysis
Graph Theory	Number Theory
Data Structures	Advanced Algorithms
Numerical Analysis	Artificial Intelligence
Computer Architecture	Systems Programming
Software Design	Compiler Design

ADDITIONAL INFORMATION

LANGUAGES	English, Hindi, Tamil, Kannada
CREATIVITY	Self-taught pianist, guitarist, and bassist

REFERENCES

NAME	**Mariana Silva**
POSITION	Teaching Assistant Professor University of Illinois
EMAIL	mfsilva@illinois.edu
NAME	**Wade Fagen-Ulmschneider**
POSITION	Teaching Associate Professor University of Illinois
EMAIL	waf@illinois.edu
NAME	**Salil Datta**
POSITION	Director of Development Waterline Data
EMAIL	sdatta@waterlinedata.com