Akhil Krishna Mohan

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EDUCATION

AUG 2017 - MAY 2021 — **B.S Mathematics & Computer Science**
Department of Computer Science
University of Illinois Urbana-Champaign

GRADE-POINT AVERAGE — 3.2

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 handling many jobs. Co-authored a paper to document the efficacy of the approach used.

GAIME
Developed 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 (PT)
University of Illinois
Course Assistant - Software Design Studio
Moderating weekly code reviews for a group of students, allowing them to learn and improve from their mistakes. Helping create content and infrastructure to aid 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).

TECHNICAL SKILLS

LANGUAGES — Python, C, Linux, Java, C++, LaTeX
Ocaml, LISP, FSharp, Javascript

LIBRARIES — Apache Hadoop, Solr, Spark, Hive, Flask, ExpressJs, OpenFrameworks, Cython, multiprocessing, threading, SpaCy, TextBlob, nltk, numpy, bs4, matplotlib, graphviz, scipy, pygame, pyglet, manim, pandas

COMMUNICATION SKILLS

RESEARCH — Poster at PURE Research symposium
(Best Presentation Award, May 2018)

Junto paper, submitted to ASEE for review
(Oct 2019)

LEADERSHIP — Project Head - GAIME
CS 196 - Freshman Honors
(Aug-Dec 2017)

COURSEWORK

Discrete Structures	Software Design
Abstract Linear Algebra	Probability Theory
Data Strutures	Algorithms
Compiler Design	Numerical Analysis
Computer Architecture	Systems Programming

ADDITIONAL INFORMATION

LANGUAGES — English, Hindi, Tamil, Kannada

CREATIVITY — Self-taught pianist, guitarist, and bassist

REFERENCES

NAME — **Salil Datta**
POSITION — Director of Development
Waterline Data
EMAIL — sdatta@waterlinedata.com

NAME — **Mariana Silva**
POSITION — Teaching Assistant Professor
University of Illinois
EMAIL — mfsilva@illinois.edu

NAME — **Mahalingam Vaidyanathan**
POSITION — Vice-President of Engineering
SM Netserv Technologies
EMAIL — malisharma@gmail.com