Michael Tang

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EDUCATION

University of Maryland, College Park, MD
B.S., Computer Science | B.S., Statistics — Expected May 2023
Overall GPA: 3.777

LANGUAGES / ENVIRONMENT

Proficient in: Java, Python / Git, Mercurial, Agile development
Experience in: Hack, PHP, JavaScript, React, OCaml, C, Ruby, Python, Arduino, R, SAS, Dr. Racket, True Basic, STELLA, HTML/CSS, Unix, Makefiles, Assembly, Matlab

EXPERIENCE

Software Engineering Internship at Meta - Ads Privacy and Infra Team — 2022 Summer

- Worked in an agile development environment entailing scrums, sprints, and continuous development
- Built an internal tool in use by a team of 150+ engineers, in React JS and Hack/PHP to accelerate testing when processing ads data
- Designed a structured consent determination system for evaluating ads data to be legally compliant
- Ensured processing of ads data was privacy conscious to protect the company from lawsuits

Statistics Programming Internship - Research lead by Professor Bill Fagan at UMCP — 2021 Fall

- Employed machine learning algorithms to model animal movement data using R and the CTMM package to better understand animal's capacity for memory and revisitation surfaces
- Parsed through data using Python and Numpy/Pandas packages to make tidy data
- Utilized git version control to ensure all researchers were using up to date datasets

Team Leader for Over Sand Vehicle Project - Project at UMCP — 2019 Fall

- Lead a group of 8 students to design, prototype, and construct an autonomous over sand vehicle on a budget of $350 in under 3 months
- Individually designed, constructed, and calibrated a load cell scale, a conductivity tester, as well as coded the autonomous movement algorithm using arduino programming
- Created wiring schematics for each sensor, battery, and motor to the arduino main board

SKILLS

Machine Learning and Artificial Intelligence — 2022 Fall

- Constructed a deep neural network using Keras and Tensorflow to classify images of fruits and vegetables
- Compared the effect of different layers and activation functions on the efficiency of neural networks
- Implemented many AI/ML algorithms in python such as perceptron, q-learning, value iteration, k-means, k-nn, SVM, PCA, etc.

Ruby and OCaml - University of Maryland taught by Professor Michael Hicks — 2021 Spring

- Implemented a phonebook database, as well as a battleship game in Ruby to learn syntactical differences between Ruby and Java
- Learned functional programming concepts such as tail recursion and higher order functions by implementing regular expressions and finite automata in OCaml
- Programmed a lexer and parser to create a shell program in OCaml

C - University of Maryland taught by Professor Larry Herman — 2020 Fall

- Implemented graphs, trees, and linked lists in C using dynamically allocated memory and pointers
- Utilized Valgrind and GDB in order to find and remove memory leaks as well as generally debugging faulty code
- Wrote Makefiles to expedite compilation and testing of code