Michael Yang

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Education

Rutgers University - New Brunswick 09/2015 - 01/2020

BSc - Double Major in Mechanical Engineering and Computer Science
GPA: 3.006/4.0

Relevant Coursework: Principles of AI (Graduate Course), Software Engineering, Computer Security, Data Structures, Computer Architecture, Discrete Structures, Design and Analysis of Computer Algorithms, Principles of Information and Database Management, Heat Transfer, Fluid Dynamics, Aerodynamics, Multiphysics Simulation, Dynamic Systems and Control

Technical Skills

Proficient: HTML, CSS, Java, JavaFX, JavaScript (Node.js, jQuery), JavaServer Pages, Python (numpy, pandas), Matlab, MySQL. **Familiar:** Kotlin, C/C++, CUDA, PHP, MongoDB, Golang, Ruby, Assembly Language. **Technologies:** ArduPilot, ANSYS, SolidWorks, Linux, Bash, Git, Visual Studio, Eclipse, Jupyter Notebook, MySQL Workbench, Android Studio.

Experience

NJ Center for Civic Education - Webmaster - Piscataway, NJ 09/2017 - 12/2019
– Maintained and updated website with necessary information using HTML and CSS.
– Provided technical assistance when needed.

Guardian Life - Information Technology Intern - Holmdel, NJ 06/2019 - 08/2019
– Reverse engineered data marts in the Guardian Life Data Warehouse using SQL in conjunction with the WinSQL client.
– Created documentation to map the data flow through the data marts.

Mazzeo Research Group Laboratory - Research Assistant - Piscataway, NJ
Paper Robotics 06/2017 - 10/2017 | 02/2018 - 03/2018
– Conducted experiments with paper folded using different origami designs combined with nitinol wire or pneumatics as a means of actuation for robotics.

Projects

Antagonists (Javascript) - *github.com/mikebyang/Antagonists-Simulation* 10/2019 - Present
- Created AI which would develop a strategy to win adversarial game which plays off the idea of the Latka-Volterra Model.
- Uses NeuroEvolution of Augmented Topologies (NEAT) algorithm to develop neural network.

Digit and Face Classifier (Java) - *github.com/mikebyang/DFClassifier* 08/2019
– Implementation using the naive Bayes algorithm had a peak accuracy of 84.67%.
– Implementation using the single layer perceptron algorithm had a peak accuracy of 86.70%.

Auction Website (HTML/CSS/JS/JSP/MySQL) - *github.com/mikebyang/Auction-Website* 01/2019 - 05/2019
– Designed and implemented a relational database system to support the operations of an auction system.
– Front end used JSP to connect to the back end and was styled using a combination of HTML, CSS, and JS.
– Back end was constructed using MySQL and was hosted on AWS.

Senior Design - Team Leader 09/2018 - 05/2019
– Built drones using a Raspberry Pi and a Navio2 shield as the flight controller.
– Designed to drop from a structure equipped with an electromagnet and automatically arm after detecting a downward velocity of greater than 0 m/s.

Extracurriculars

Master The Mainframe 2019 | IBM September 2019 - January 2020
– Gained experience performing programming and application development tasks on the z/OS platform.
– Completed and obtained the badge for Master The Mainframe 2019 - Part 2.

Mechanical Engineering Student Association (MESA) - Webmaster 09/2016 - 05/2019
– Maintained and updated website for MESA with necessary information for Mechanical Engineering students.
– Assisted in planning and organizing events for Mechanical Engineering students.