MICHAEL DESROCHES

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EDUCATION

University of Nevada, Reno *July 2018 - December 2020*
Bachelor of Engineering, Computer Science.

Truckee Meadows Community College *January 2016 - July 2018*
Associate of Science, Applied

PROJECTS

Magic Integrated
Magic Integrated consists of four minigames that encourage students to learn common core concepts in elementary schools. Omega Math teaches students typing, spelling, and math by having one player type a word to launch letters at the other player and that other player solve math problems to knock down the letters. Duel of the Products is a minigame where each player boosts their magical energy by solving math problems. The Matching Battle minigame asks each player to find pairs of cards. Maze Finder is a minigame where each player is presented with a maze and given the task to make it to the end of the maze before the other player.

Headfirst Design Patterns
Consists of every project in Headfirst Design Patterns book and added personal projects. Each individual project utilizes a different design pattern and includes a personal project for each chapter to immitate real world like applications. The design patterns include; Observer, Decorator, Factory, Singleton, Command, Adapter, State, and Compound Patterns. At the end of the project, there is a MVC pattern that implements a simple class catalog and description that utilizes Flask.

Solar Forcast
Predicition of solar power usage based on training sets accuired from a database. I used Support Vector Regression (SVR) to train the model and ran the training data until that data was trained. SVR gives us the flexibility to define how much error is acceptable in the model and will find an appropriate line (or hyperplane in higher dimensions) to fit the data. The test data is shifted 24 hours to predict the power. MSE and the RSME is ran to find out how good the prediction is.

GitHub **github.com/mdesroches0501**

TECHNICAL STRENGTHS

Languages	C++, Python, Java, Scala, C#
Technologies	MVC, Latex, HDFS, Spark
Databases	MySql, Sqlite
Version Control	Github

WORK EXPERIENCE

Nevada Army National Guard Jan 2008 - Current
Flight Engineer

- Participated in Operation Enduring Freedom from 2013 - 2014 in Afghanistan
- Performed air-crew duties I.A.W. FAA regulations of the UH-60 Blackhawk airframe as a RL1 crew-chief
- Over 900 flight hours, out of which 45 percent of those hours were spent achieving MEDAVAC, Fire, and Search and Rescue operations.

· Responded to aircraft malfunction and emergency procedures outlined in the UH-60 checklist.

Tesla Oct 2019 - Dec 2019
Intern

· Logical programming of robotic systems that achieved high output rate of mechanical systems used for the future of the automotive industry
· Robotic troubleshooting and maintenance of any malfunctions that would reduce the rate of production

Truckee Meadows Community College Jan 2016 - May 2019
Work Study

· Processed over 3,000 incoming and outgoing student benifits
· Created and maintained a file system that recorded all relevant student information that is still in use today
· Trained new work studies in the process of military benifits and proper procedures according to student entitlements

Nevada Army National Guard May 2008 - Aug 2016
Technician

· Over 3400 maintenance across all aircraft
· Performed issue resolution of hydraulic, transmission, pneudralic, and engine systems
· Scheduled and unscheduled maintenance in accordance with proper training manuals
· Maintained a high operational rate of assigned UH-60 airframe valued over 30 million dollars.

CERTIFICATIONS AND LICENSES

Secret Security Clearance (May 2020)

Airframe and Powerplant License (Aug 2012)