**Summary Week 5**

**Scrum Master for Next Week**

Gustavo A Hernandez

**List at least 5 things the team did well and will continue doing**

Working in Python

Visualizations in Tableau

Sharing ideas

Developing code

Working with Trello

**List at least 3 things the team did poorly and how you will mitigate them next sprint**

Time management

Workspace

Weekly meeting

**List shout-outs to any team members for excelling in any way**

Gustavo – Taking care of coding!

**What did you learn as a team this week?**

How to communicate efficiently

**What did you learn as an individual this week?**

How much goes into just one project.

size = 0.8 ## train size

train, test = data\_close\_price.iloc[:int(size\*len(data\_close\_price))], data\_close\_price.iloc[int(size\*len(data\_close\_price)):]

SARIMAX

model = SARIMAX(train,order=(2,1,2),seasonal\_order=(1,1,1,4)).fit(disp=-1)

model.summary()

model.plot\_diagnostics(figsize=(20,10))

plt.show()

Predictions

predictions = model.get\_prediction(start='2000-03-31',end='2022-06-30')

conf = predictions.conf\_int()

test\_conf = conf.loc[test.index[0]:]

## ploting results

plt.plot(predictions.predicted\_mean[1:],color='red',label='predictions')

plt.plot(train,color='blue',label='original')

plt.plot(test,color='green',label='test')

plt.fill\_between(test\_conf.index, test\_conf.iloc[:,0], test\_conf.iloc[:,1], color='gray', alpha=.2,label='95% confidence')

plt.title('Original vs Predictions',size=20)

plt.legend(loc='best');

Accuracy Metrics

print(f"Mean Absolute Error: {mean\_absolute\_error(data\_close\_price[1:],predictions.predicted\_mean[1:])}")

print(f"Mean Absolute Percentage Error: {mean\_absolute\_percentage\_error(data\_close\_price[1:],predictions.predicted\_mean[1:])}")