Appendix

k-Means Clustering Subclassification

- **Cluster 0:** The Lost Vikings
- **Cluster 1:** Leoric, Arthas, Sonya, Chen, Stitches, Anub'arak, Dehaka, Johanna, Cho, Muradin, E.T.C
- **Cluster 2:** Abathur, Azmodan, Gazlowe, Murky, Nazeebo, Sylvanas, Xul, Zagara
- **Cluster 3:** Alarak, Chromie, Falstad, Greymane, Gul'dan, Jaina, Kael'thas, Li-Ming, Lunara, Raynor, Samuro, Tychus, Valla, Sgt. Hammer, Medivh
- **Cluster 4:** The Lost Vikings
- **Cluster 5:** Auriel, Brightwing, Kharazim, Li Li, Lt. Morales, Malfurion, Rehgar, Tassadar, Tyrande, Uther
- **Cluster 6:** Artanis, Zarya, Diablo, Varian, Rexxar, Tyrael
- **Cluster 7:** Gall
- **Cluster 8:** Illidan, Kerrigan, Thrall

Handmade Hero Classifications

- **EXP Soak:** Abathur, The Lost Vikings
- **Burst Damage:** Chromie, Jaina, Kael'thas, Li-Ming, Nova
- **Auto Attack Sustained:** Raynor, Valla, Lunara, Tychus
- **Ability Sustained:** Nazeebo, Gul'dan, Gall, Falstad
- **Sustained Dive:** Tracer, Illidan, Samuro, The Butcher
- **Burst Dive:** Zeratul, Greymane, Kerrigan, Alarak
- **Siege:** Azmodan, Gazlowe, Xul, Sylvanas, Zagara, Sgt. Hammer, Murky
- **Tank:** Johanna, ETC, Muradin, Cho, Stitches

- **Off-tank:** Leoric, Anub'arak, Dehaka, Zarya, Rexxar, Tyrael, Arthas, Chen, Diablo
- **Bruiser:** Sonya, Thrall, Artanis
- **Burst Heal:** Auriel, Uther, Rehgar
- **Sustained Heal:** Brightwing, Malfurion, Lt. Morales, Lili, Kharazim
- **Utility Support:** Tassadar, Medivh, Tyrande
- **Multi-Role:** Varian

Win/Loss Predictor Results

Heroes	In-game classes	Subclasses	Algorithm	Accuracy
Yes	No	None	Neural Network	50.1%(441/879)
Yes	No	None	KNN	48.7%(428/879)
Yes	No	None	SVM	53.7%(472/879)
Yes	No	None	Logistic Regression	55.3%(486/879)
Yes	Yes	None	Neural Network	52.3%(460/879)
Yes	Yes	None	KNN	50.3%(442/879)
Yes	Yes	None	SVM	53.9%(474/879)
Yes	Yes	None	Logistic Regression	55.3%(486/879)
No	Yes	None	Neural Network	48.5%(426/879)
No	Yes	None	KNN	48.9%(430/879)
No	Yes	None	SVM	50.8%(446/879)
No	Yes	None	Logistic Regression	49.9%(439/879)
No	No	HotsLogs	Neural Network	51.9%(456/879)
No	No	HotsLogs	KNN	51.6%(454/879)
No	No	HotsLogs	SVM	50.9%(447/879)
No	No	HotsLogs	Logistic Regression	51.4%(452/879)
No	No	Handmade	Neural Network	50.3%(442/879)
No	No	Handmade	KNN	51.4%(452/879)
No	No	Handmade	SVM	52.2%(459/879)
No	No	Handmade	Logistic Regression	51.5%(453/879)
No	No	Clusters	Neural Network	50.2%(441/879)
No	No	Clusters	KNN	49.2%(433/879)
No	No	Clusters	SVM	51.2%(450/879)
No	No	Clusters	Logistic Regression	52.2%(459/879)

Heroes	In-game classes	Subclasses	Algorithm	Accuracy
Yes	No	Clusters	Neural Network	49.9%(439/879)
Yes	No	Clusters	KNN	51.6%(454/879)
Yes	No	Clusters	SVM	54.1%(476/879)
Yes	No	Clusters	Logistic Regression	55.6%(489/879)
Yes	No	Handmade	Neural Network	49.8%(438/879)
Yes	No	Handmade	KNN	52.0%(457/879)
Yes	No	Handmade	SVM	53.8%(473/879)
Yes	No	Handmade	Logistic Regression	55.4%(487/879)
Yes	No	HotsLogs	Neural Network	49.4%(435/879)
Yes	No	HotsLogs	KNN	52.3%(460/879)
Yes	No	HotsLogs	SVM	54.2%(476/879)
Yes	No	HotsLogs	Logistic Regression	55.5%(488/879)
Yes	Yes	HotsLogs	Neural Network	49.7%(437/879)
Yes	Yes	HotsLogs	KNN	51.9%(456/879)
Yes	Yes	HotsLogs	SVM	53.9%(474/879)
Yes	Yes	HotsLogs	Logistic Regression	55.4%(487/879)
Yes	Yes	Handmade	Neural Network	50.5%(444/879)
Yes	Yes	Handmade	KNN	51.4%(452/879)
Yes	Yes	Handmade	SVM	54.0%(475/879)
Yes	Yes	Handmade	Logistic Regression	55.5%(488/879)
Yes	Yes	Clusters	Neural Network	50.6%(445/879)
Yes	Yes	Clusters	KNN	49.9%(439/879)
Yes	Yes	Clusters	SVM	54.2%(476/879)
Yes	Yes	Clusters	Logistic Regression	55.5%(488/879)
No	Yes	Clusters	Neural Network	51.0%(448/879)
No	Yes	Clusters	KNN	50.2%(442/879)
No	Yes	Clusters	SVM	51.8%(456/879)
No	Yes	Clusters	Logistic Regression	52.3%(460/879)
No	Yes	Handmade	Neural Network	53.4%(469/879)
No	Yes	Handmade	KNN	53.2%(468/879)
No	Yes	Handmade	SVM	52.4%(461/879)
No	Yes	Handmade	Logistic Regression	51.0%(448/879)
No	Yes	HotsLogs	Neural Network	50.4%(443/879)
No	Yes	HotsLogs	KNN	50.6%(445/879)
No	Yes	HotsLogs	SVM	50.6%(445/879)
No	Yes	HotsLogs	Logistic Regression	50.4%(443/879)