



Evaluating Fairness for Semi-Supervised Cardiac Magnetic Resonance Image Segmentation

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Student: Muhammad Khattab



Technische Universität München

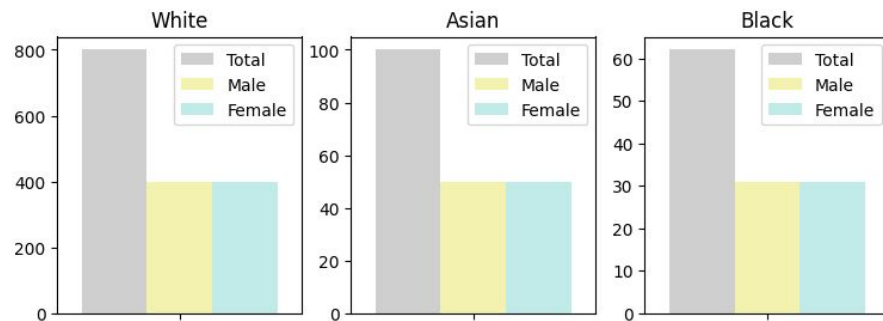
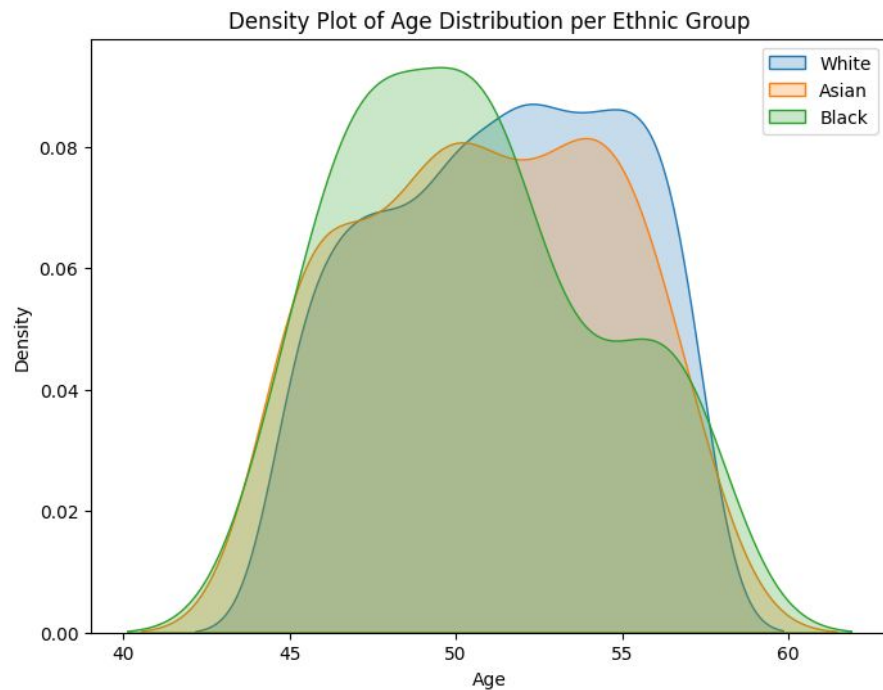


JOHNS HOPKINS
WHITING SCHOOL
of ENGINEERING



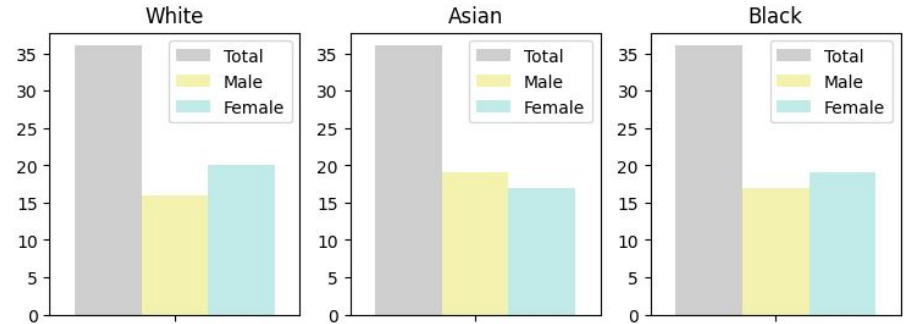
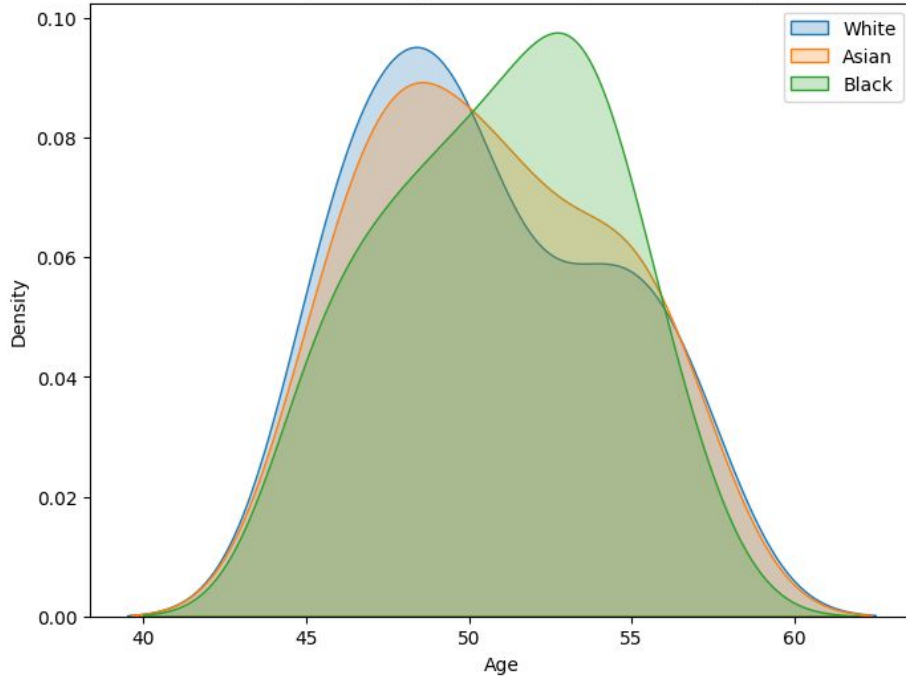
Test Sets

Sex Controlled Test Set



Ethnicity Controlled Test Set

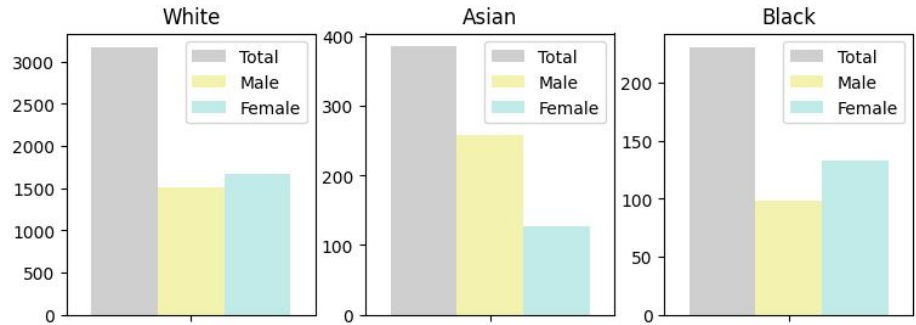
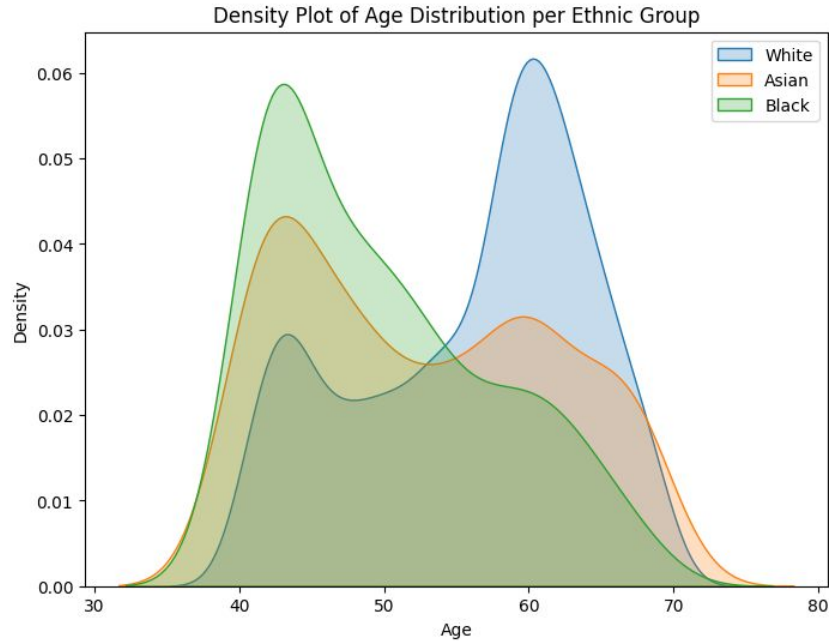
Density Plot of Age Distribution per Ethnic Group



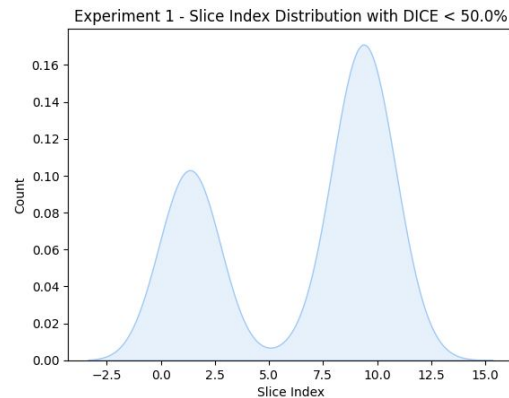
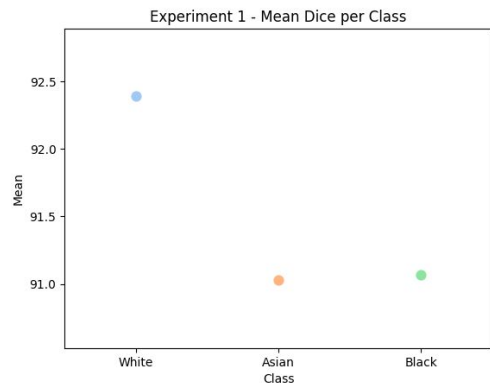
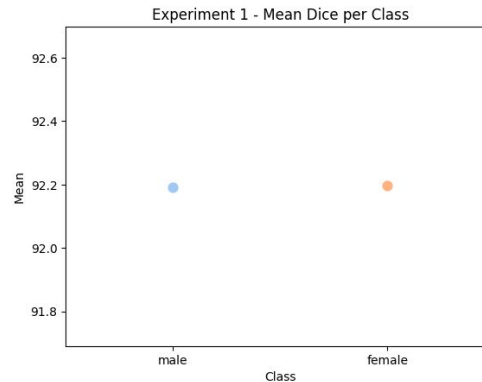
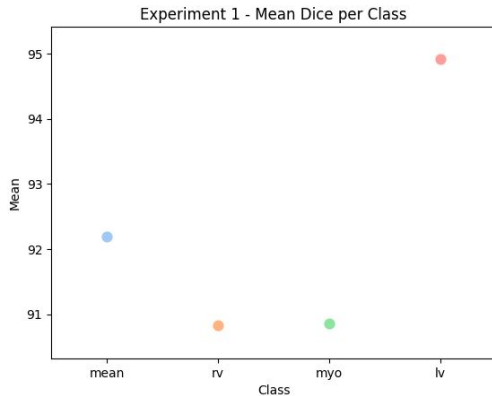


Experiment 1

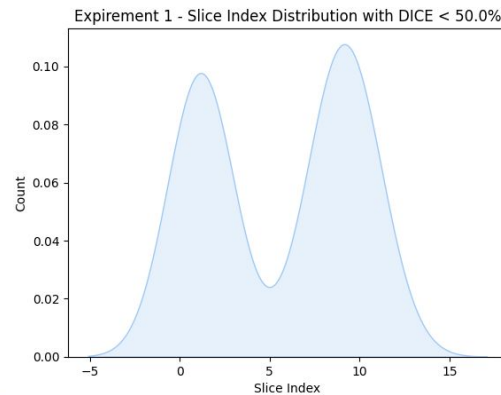
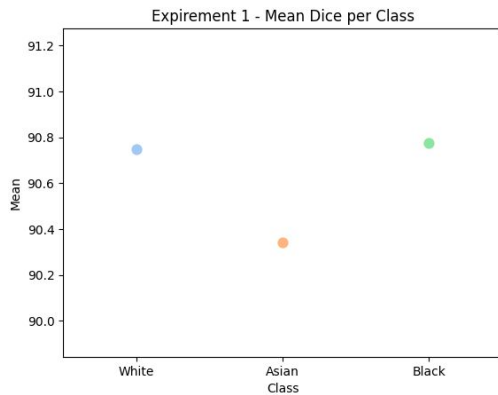
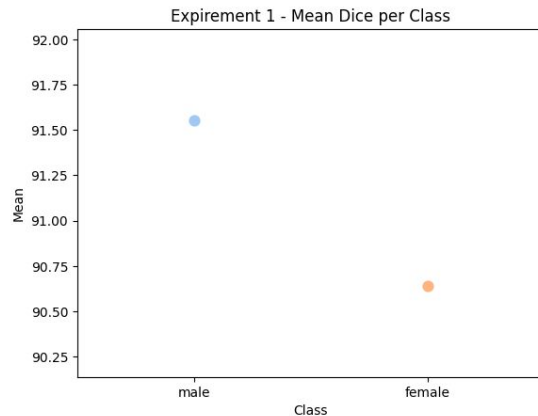
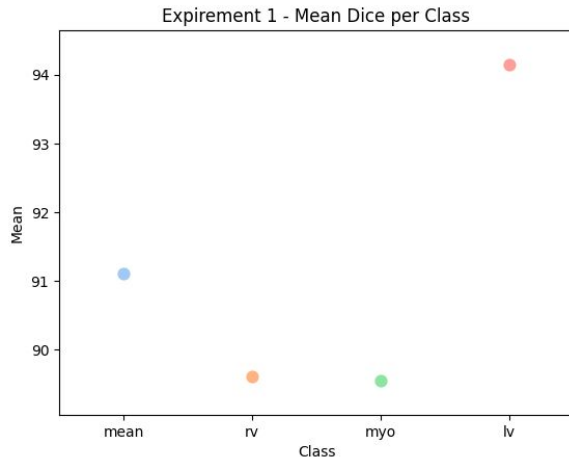
Experiment 1: Train Set



Experiment 1: Results on Sex Controlled Test Set



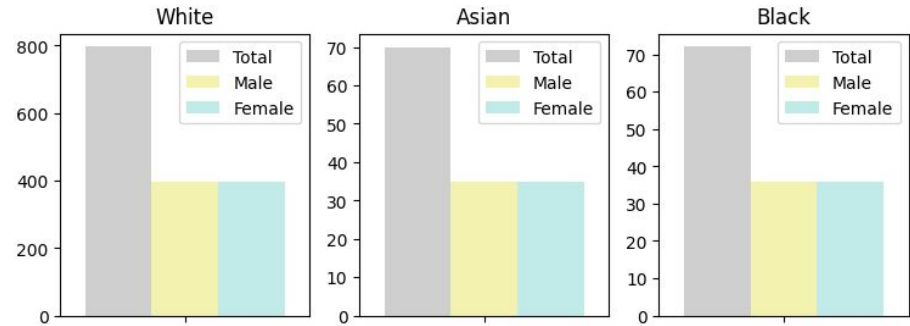
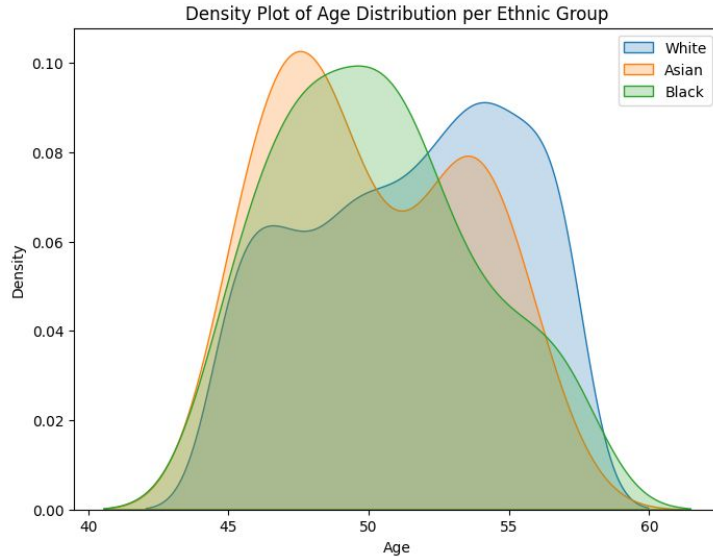
Experiment 1: Results on Ethnicity Controlled Test Set



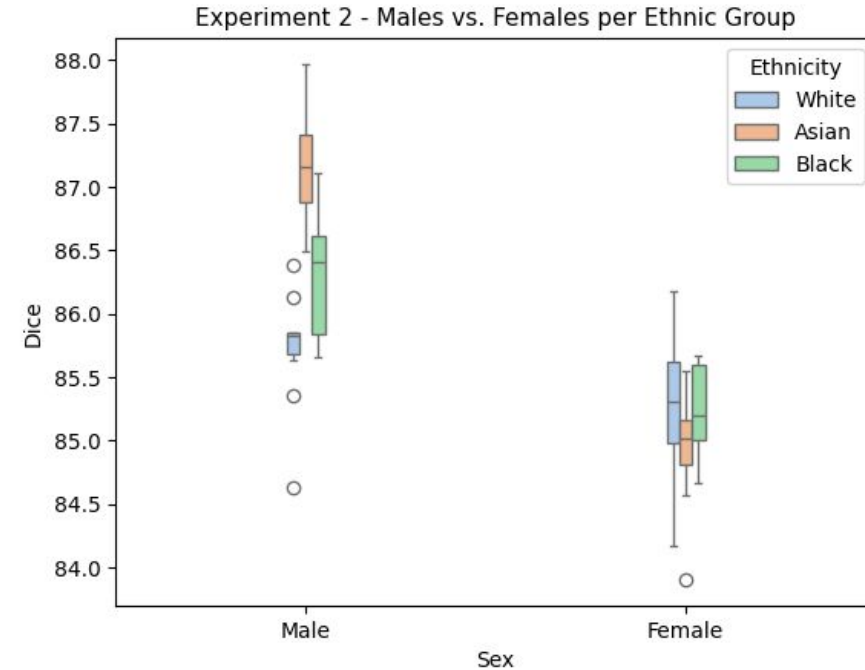
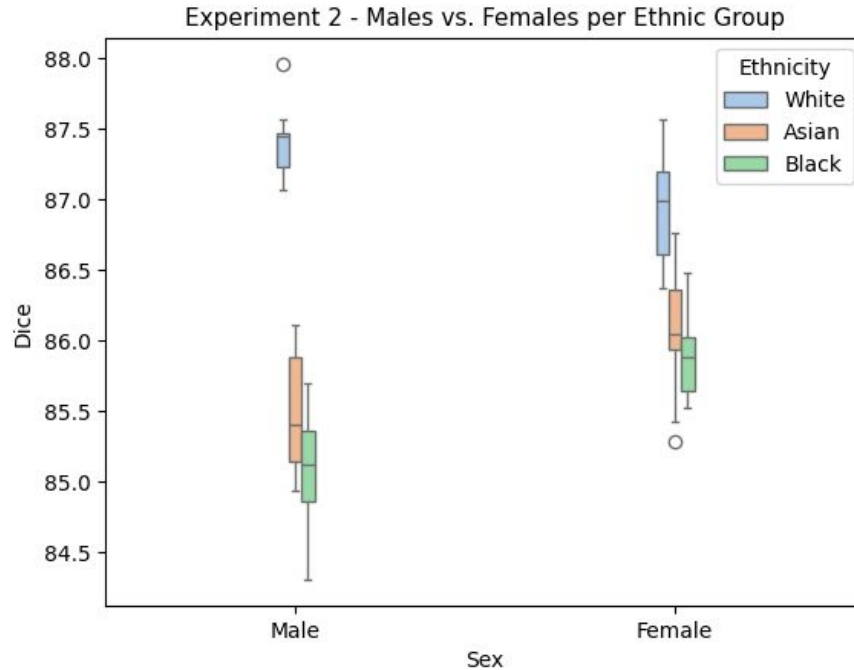


Experiment 2

Experiment 2: Sex Controlled Train Set



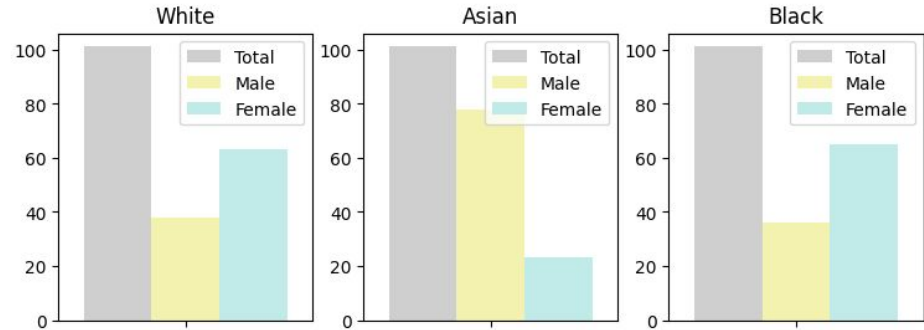
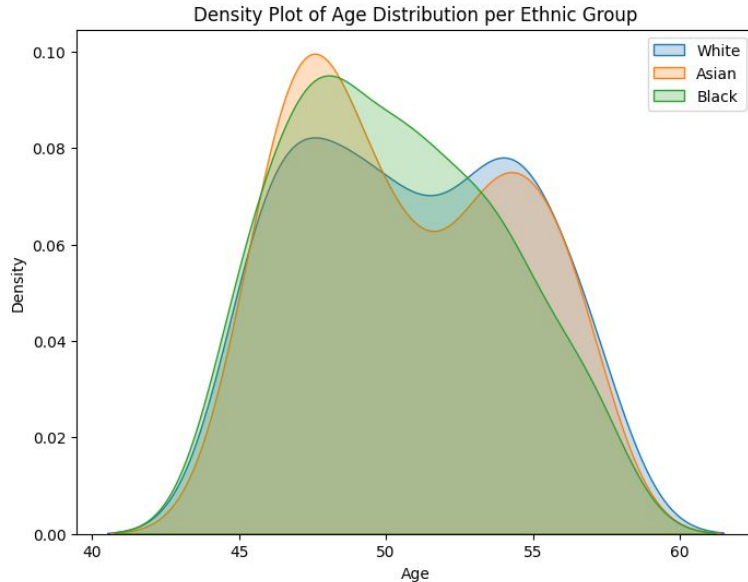
Experiment 2: Performance Test Set 1 Vs Test Set 2





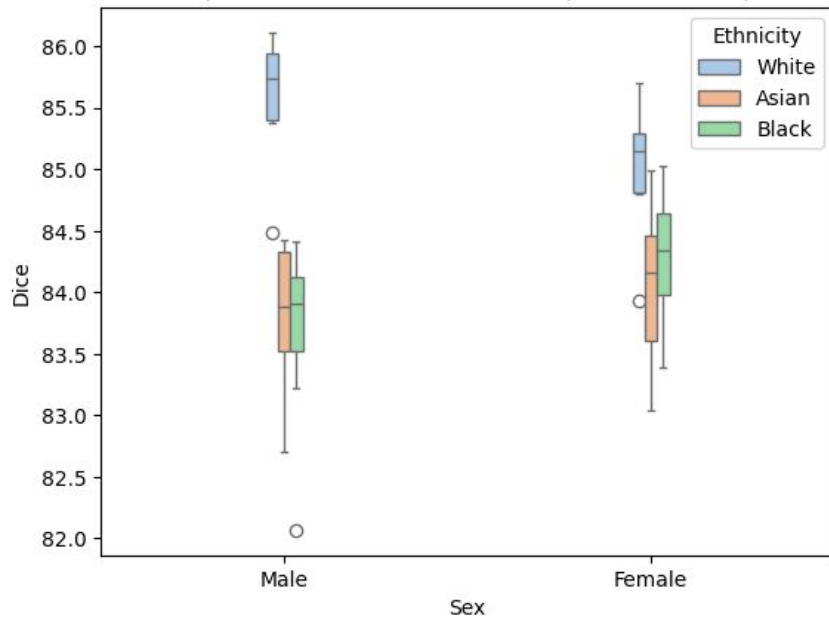
Experiment 3

Experiment 3: Ethnicity Controlled Train Set

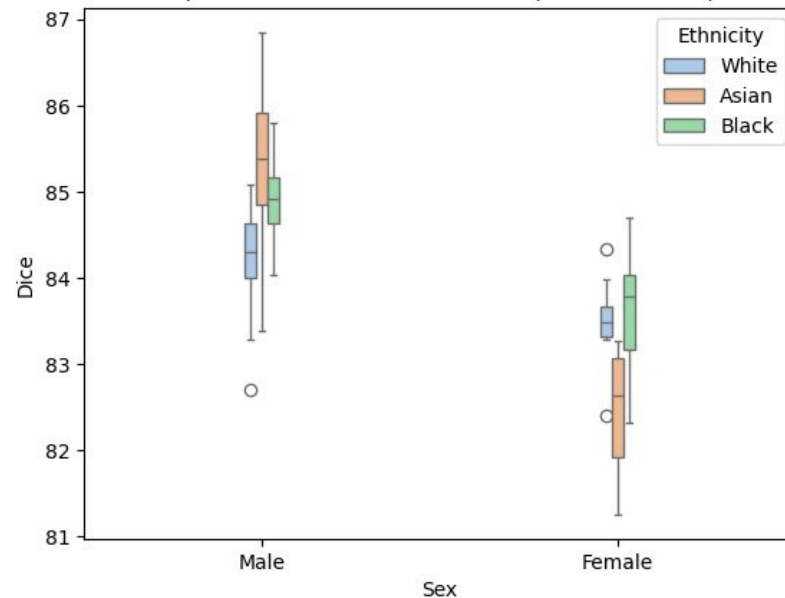


Experiment 3: Performance Test Set 1 Vs Test Set 2

Experiment 3 - Males vs. Females per Ethnic Group



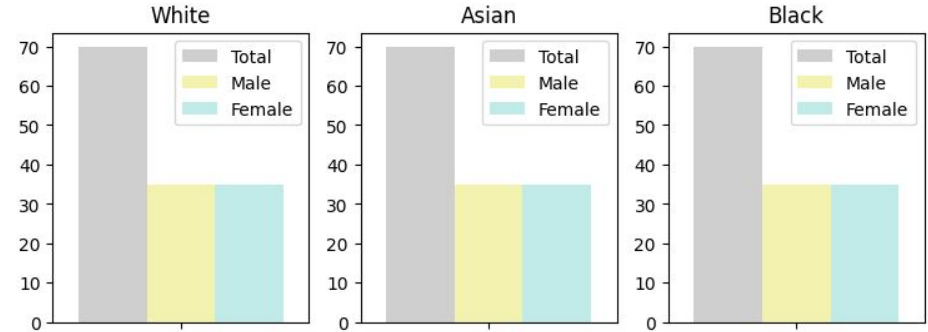
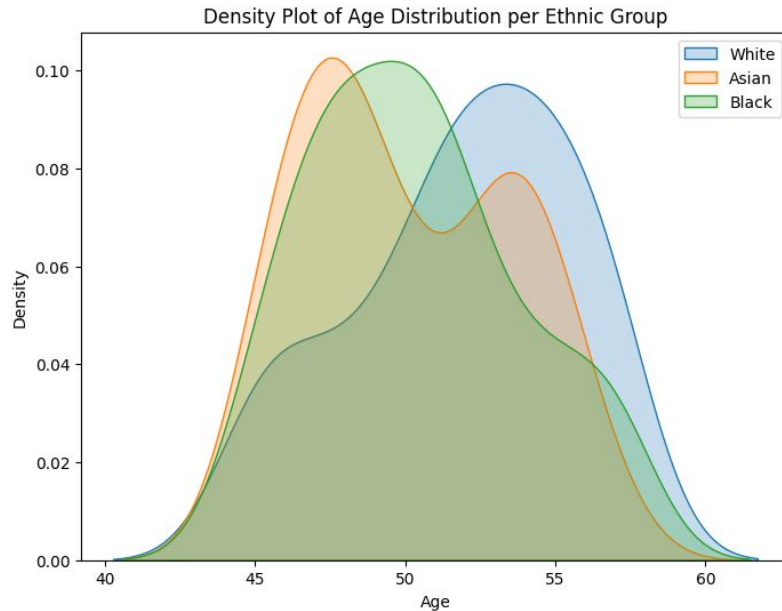
Experiment 3 - Males vs. Females per Ethnic Group



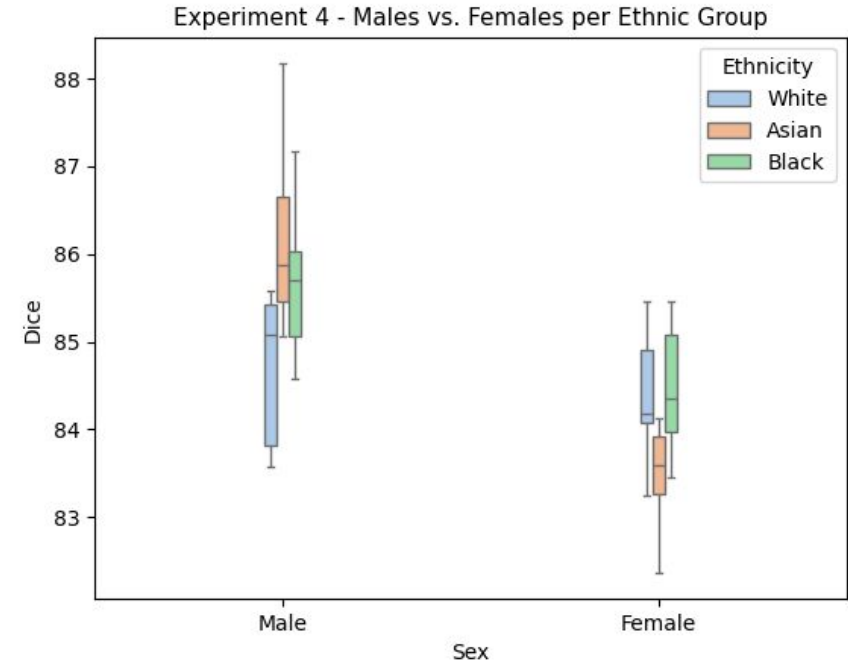
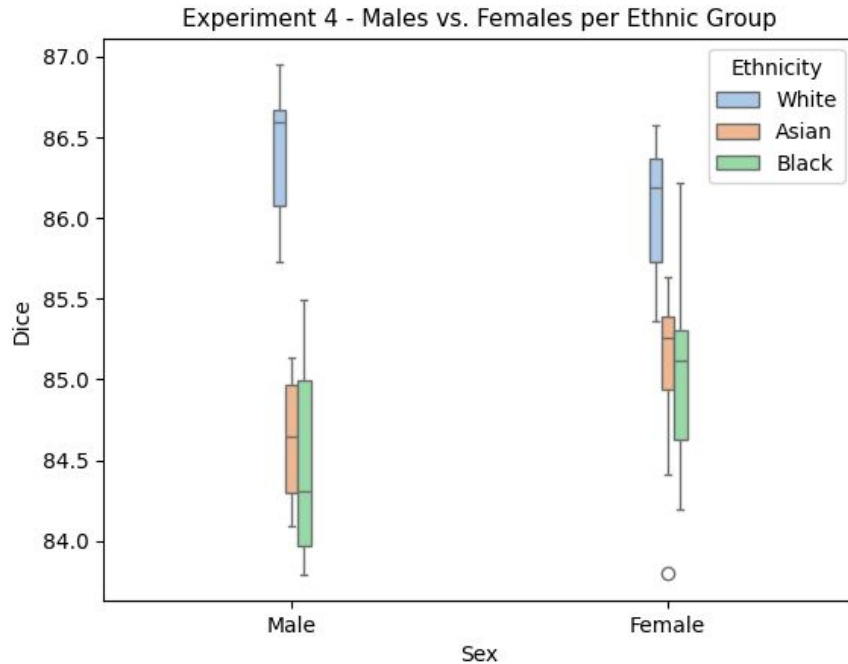


Experiment 4

Experiment 4: Sex Ethnicity Controlled Train Set



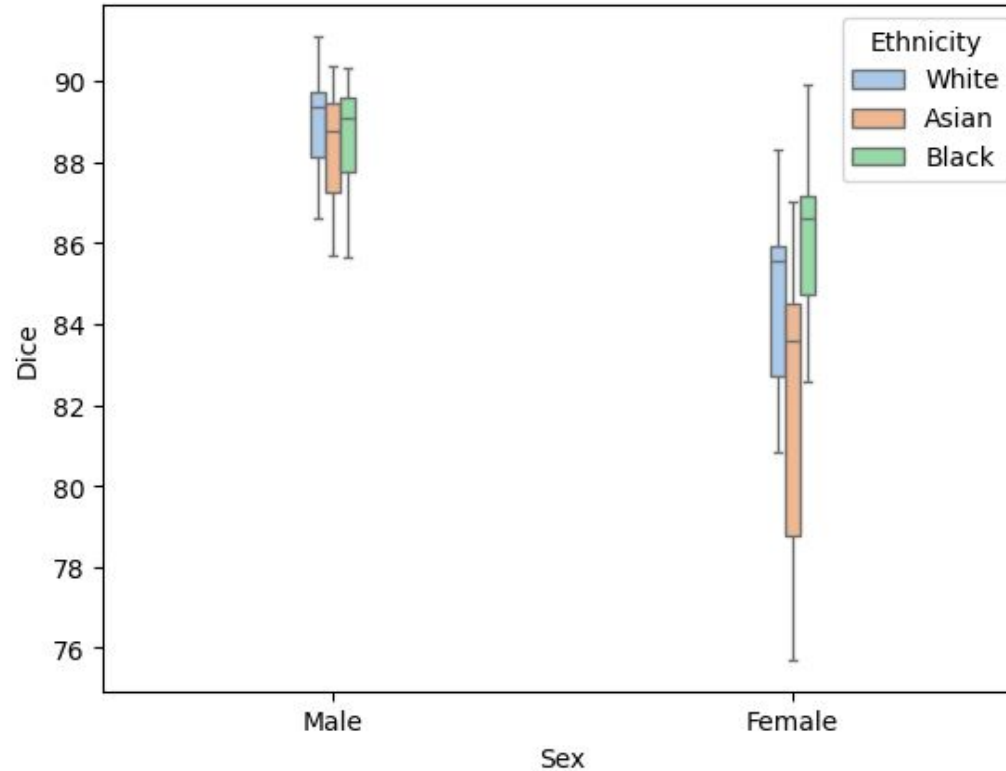
Experiment 4: Performance Test Set 1 Vs Test Set 2





Experiment 5

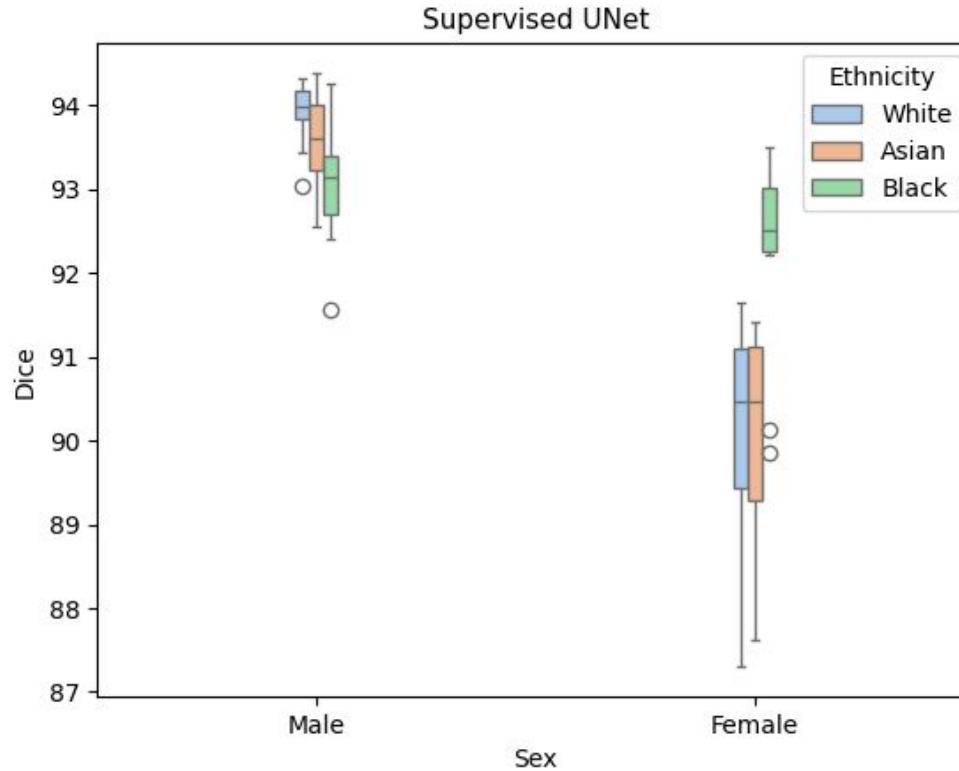
Experiment 5: Performance on Test Set 2





Experiment 6

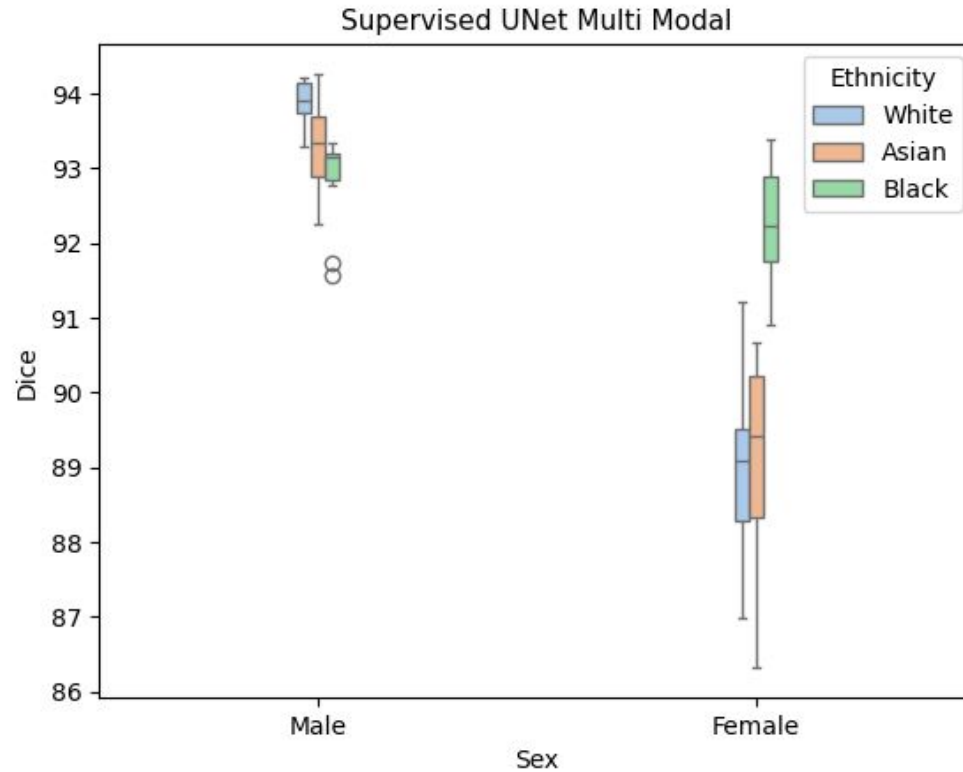
Experiment 6: Performance on Test Set 2





Experiment 7

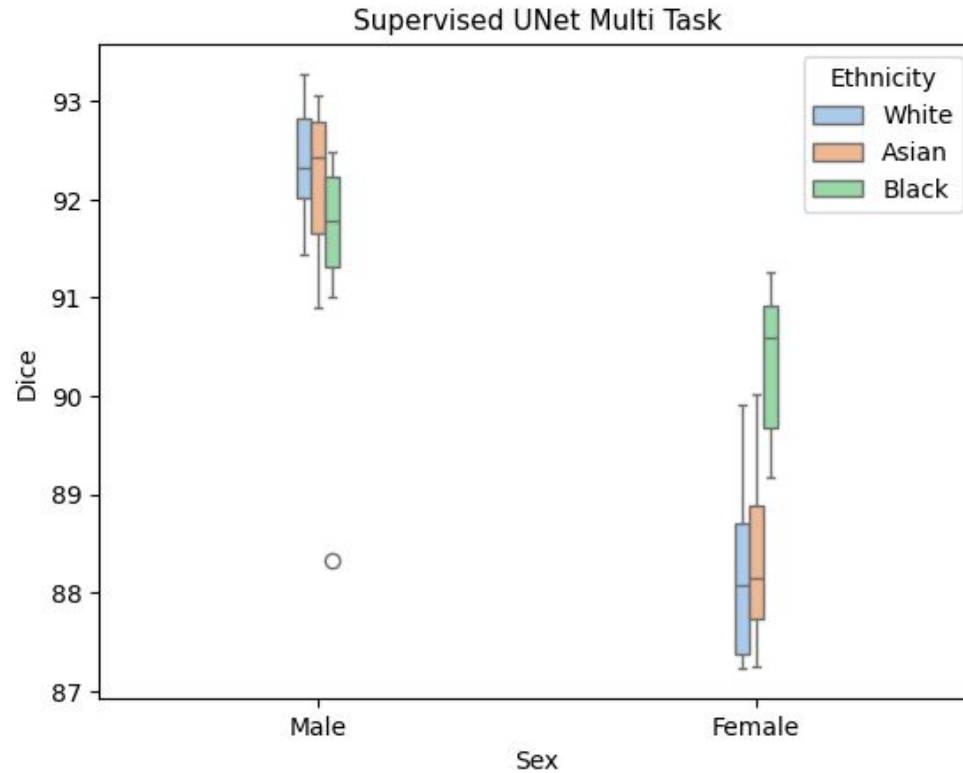
Experiment 7: Performance on Test Set 2





Experiment 8

Experiment 8: Performance on Test Set 2





Thank you!
Questions?