University of Central Florida

Department of Computer Science

CDA 5106: Fall 2024

Machine Problem 2: Branch Prediction

by

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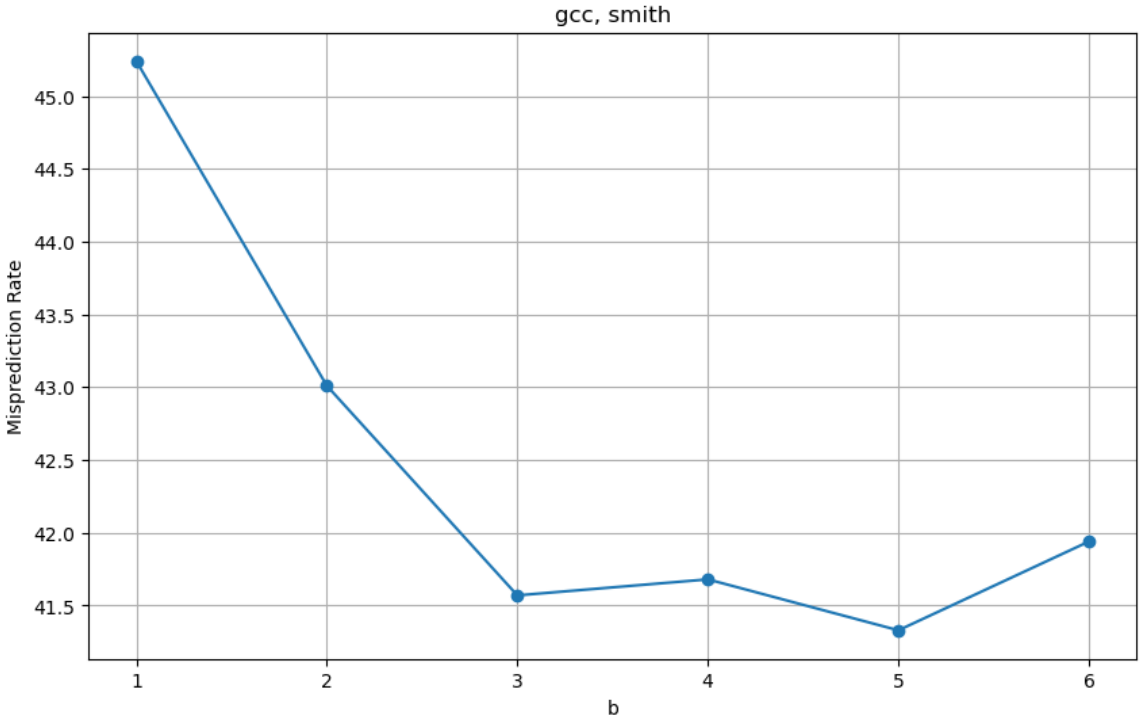
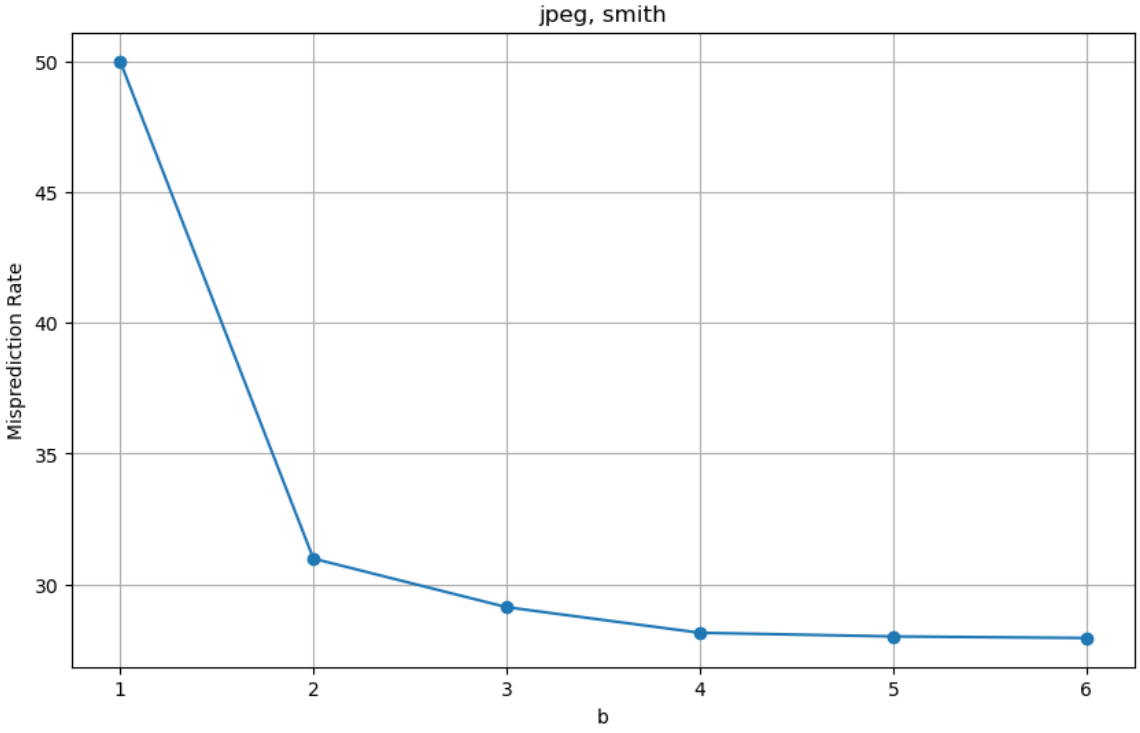
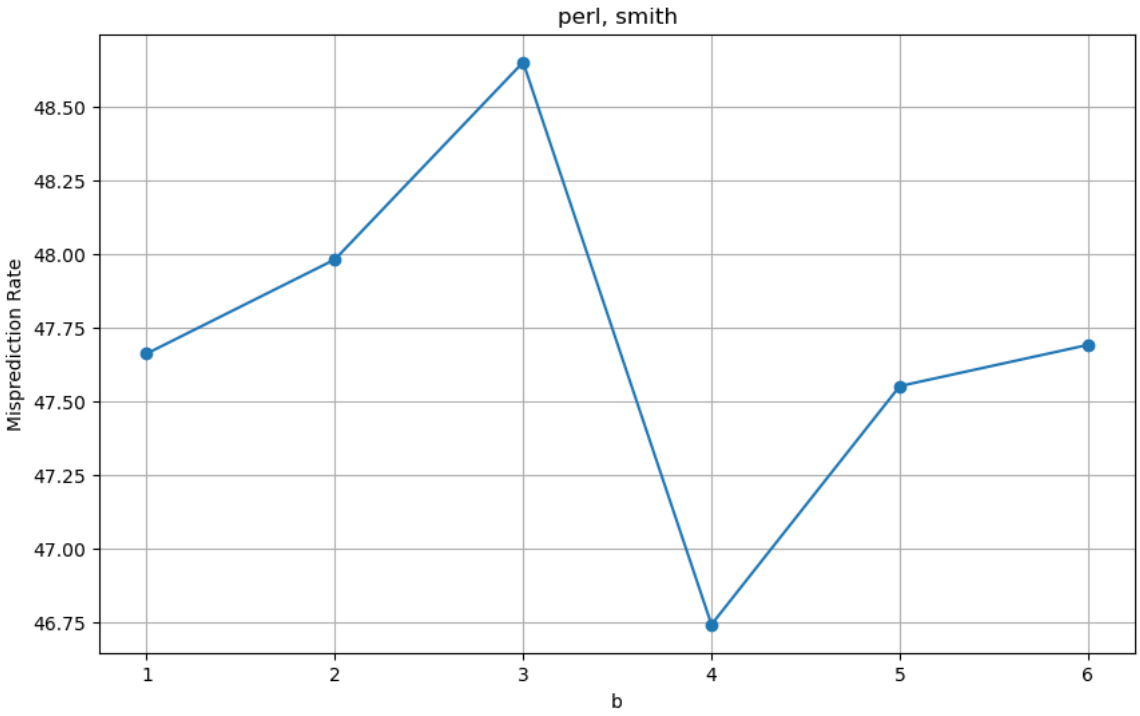
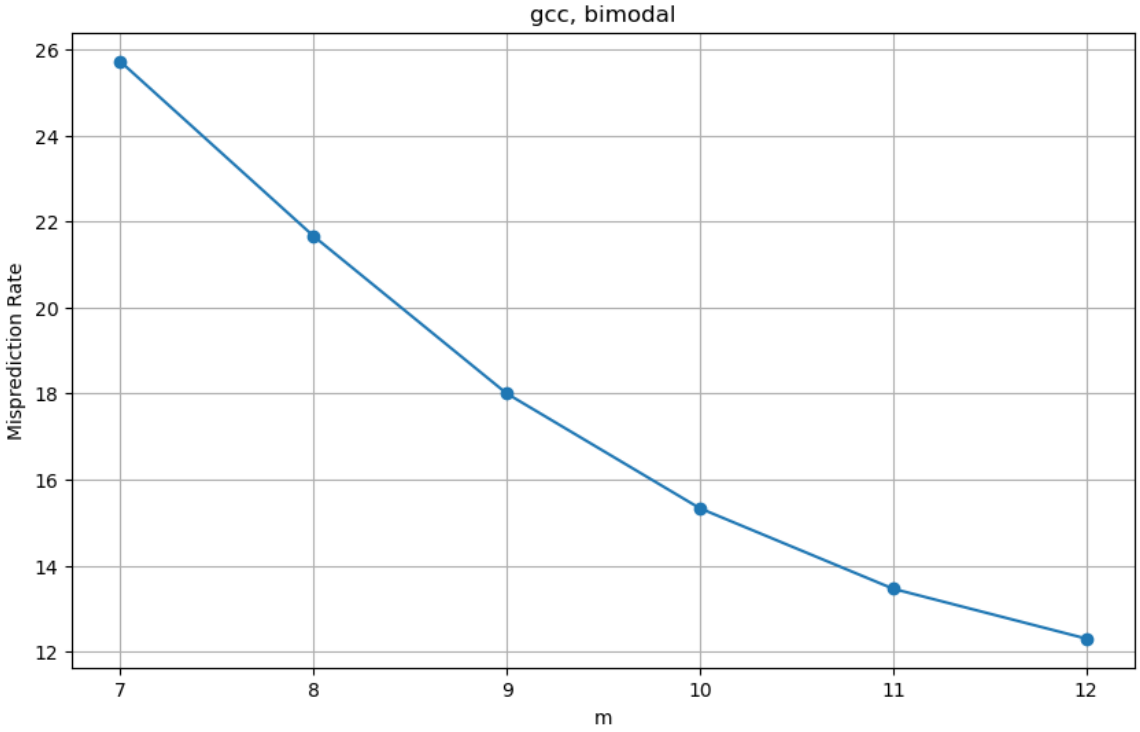
Honor Pledge: "I have neither given nor received unauthorized aid on this test or assignment."

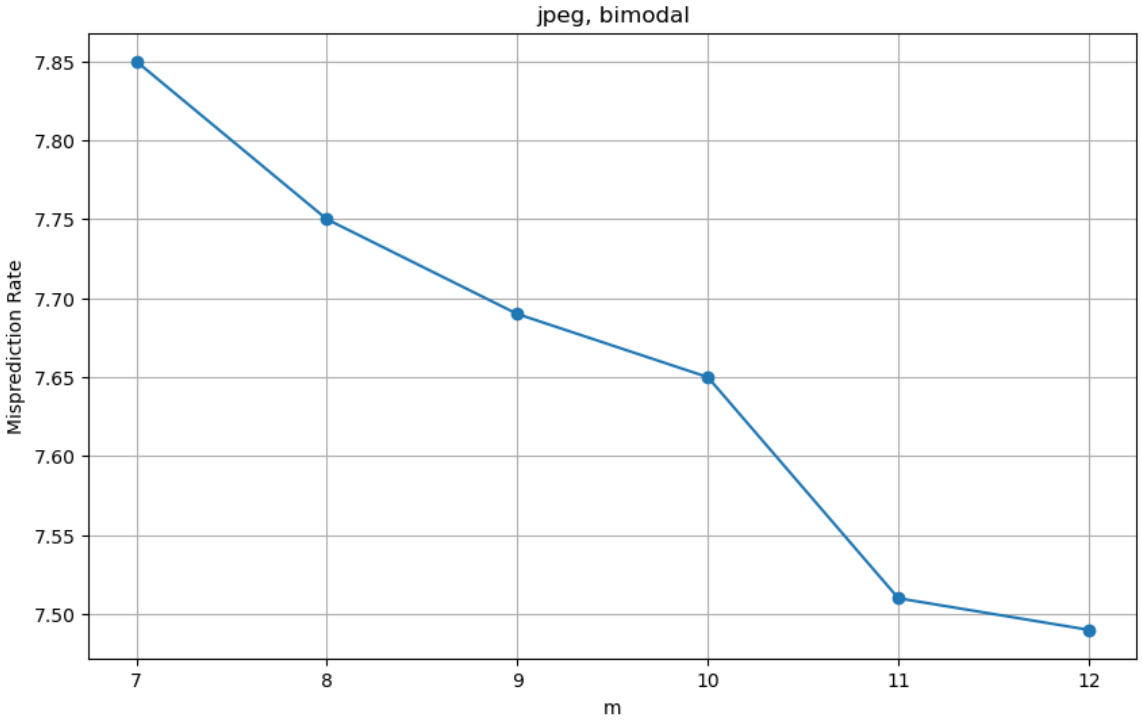
Student's electronic signature: _____Justin Morera_____
(sign by typing your name)

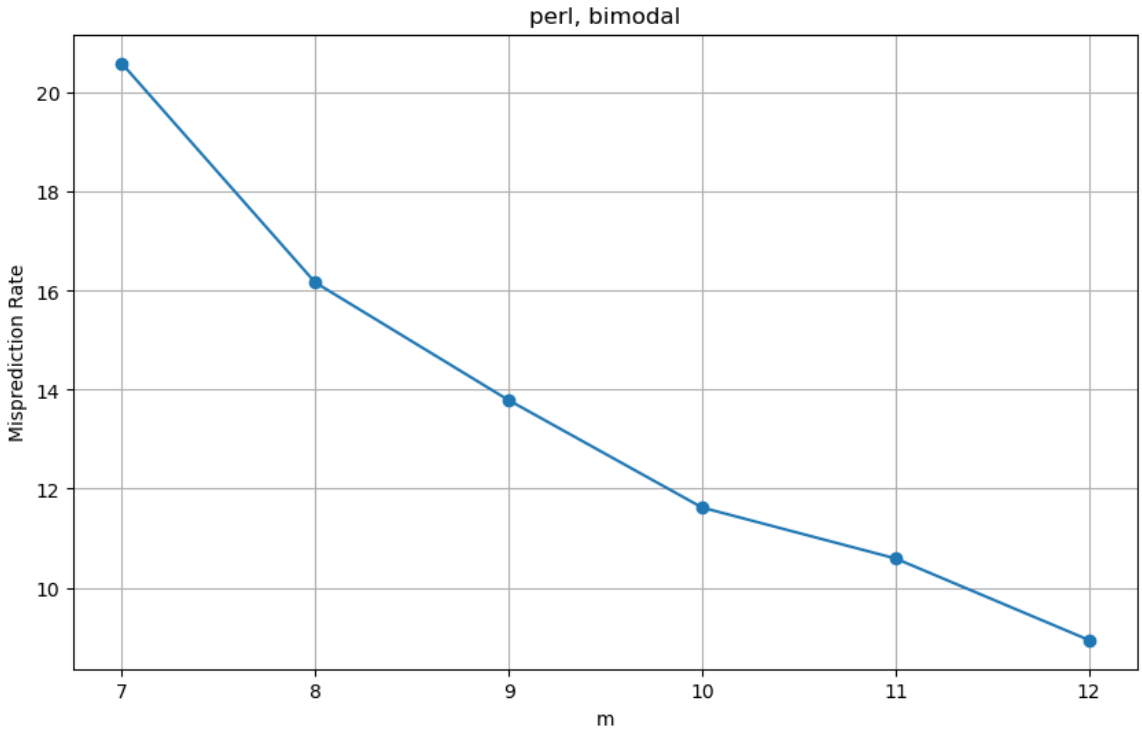

gcc, smith
Misprediction Rate
45.0
44.5
44.0
43.5
43.0
42.5
42.0
41.5
1
2
3
4
5
6
b

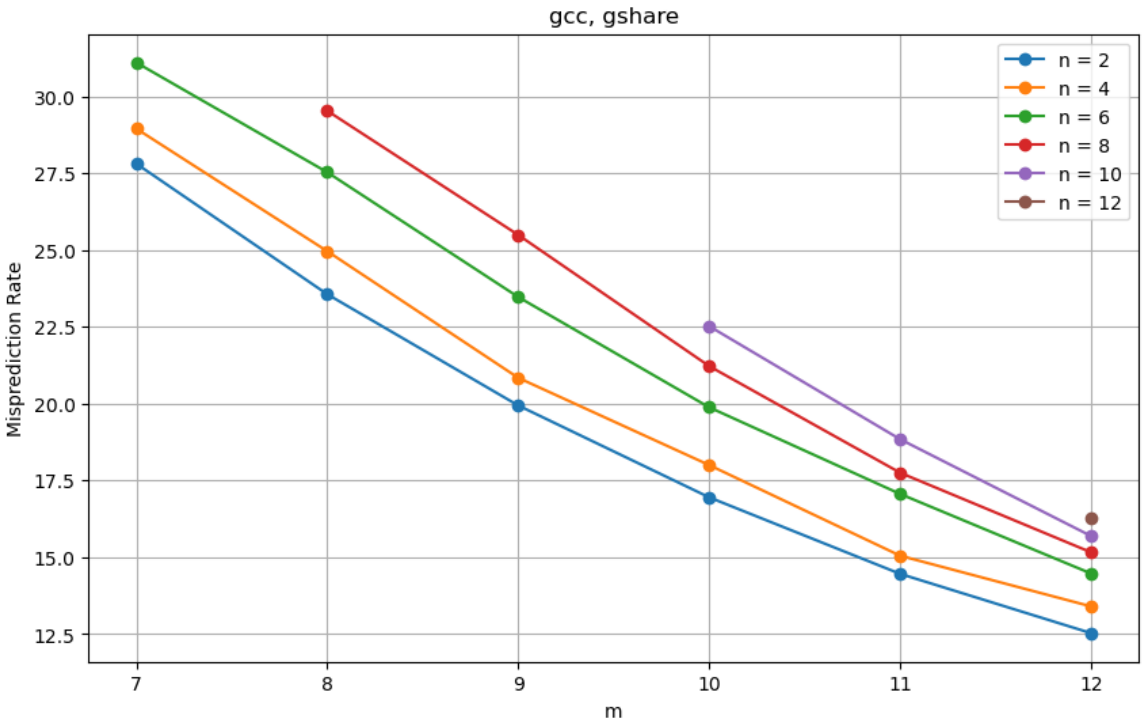

jpeg, smith
Misprediction Rate
50
45
40
35
30
1
2
3
4
5
6
b

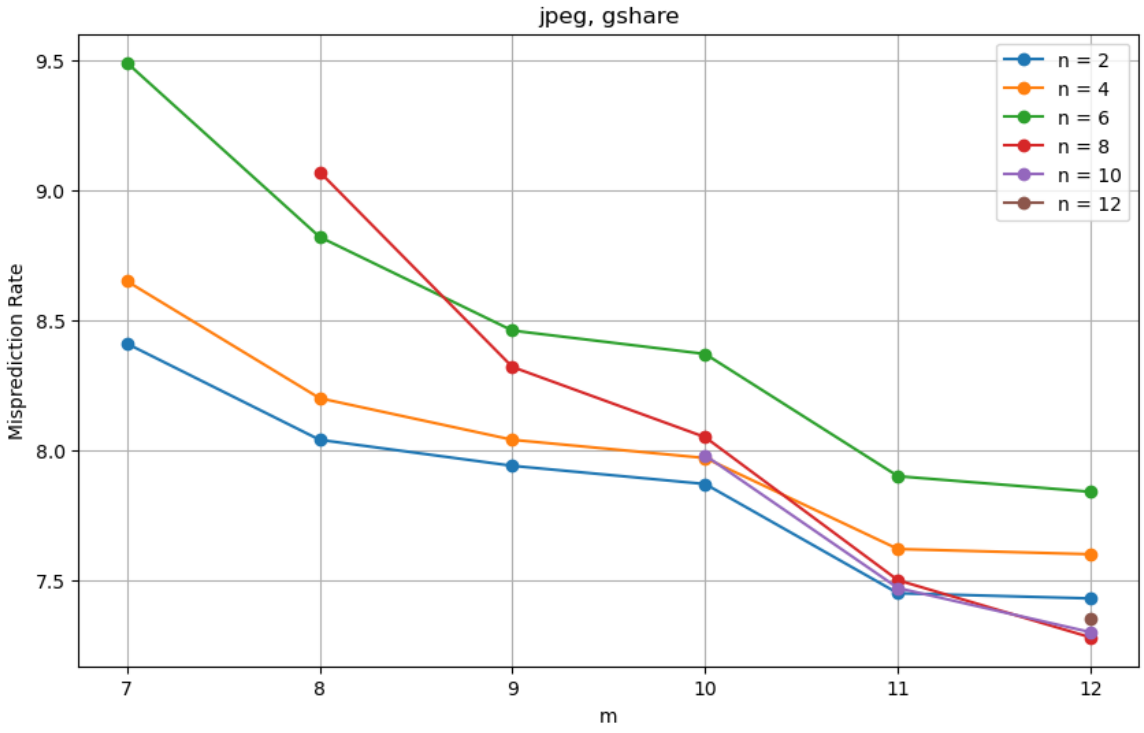

perl, smith
Misprediction Rate
48.50
48.25
48.00
47.75
47.50
47.25
47.00
46.75
1
2
3
4
5
6
b

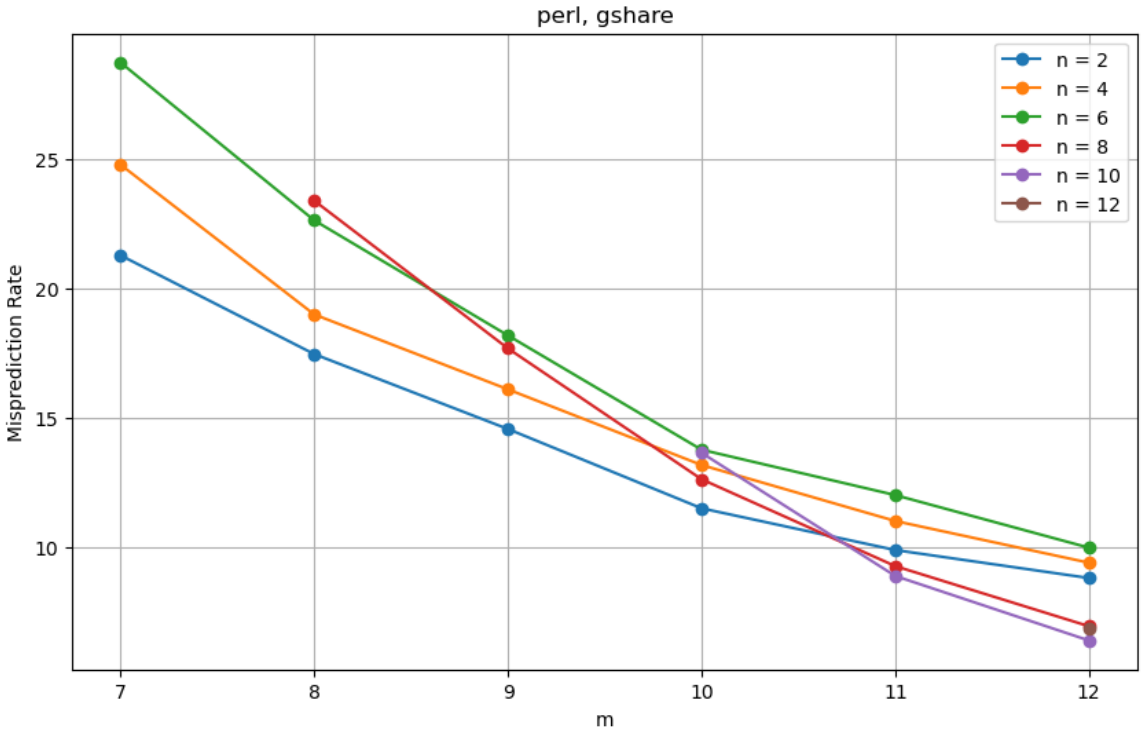

gcc, bimodal
Misprediction Rate
26
24
22
20
18
16
14
12
7
8
9
10
11
12
m


jpeg, bimodal
Misprediction Rate
7.85
7.80
7.75
7.70
7.65
7.60
7.55
7.50
7
8
9
10
11
12
m


perl, bimodal
Misprediction Rate
20
18
16
14
12
10
7
8
9
10
11
12
m


gcc, gshare
Misprediction Rate
m
n = 2
n = 4
n = 6
n = 8
n = 10
n = 12
30.0
27.5
25.0
22.5
20.0
17.5
15.0
12.5
7
8
9
10
11
12


jpeg, gshare
Misprediction Rate
m
n = 2
n = 4
n = 6
n = 8
n = 10
n = 12
9.5
9.0
8.5
8.0
7.5
7
8
9
10
11
12


perl, gshare
n = 2
n = 4
n = 6
n = 8
n = 10
n = 12
Misprediction Rate
25
20
15
10
7
8
9
10
11
12
m