

Technical Report: Exploiting Deep-Features Diversity in [Dataset Type] Classification

Michael Jordan^{*}, Homer Simpson[†], Edson A. Nascimento[‡], Michael Jackson[‡] and Lewis Hamilton[§]

^{*}School of Electrical and Computer Engineering
Georgia Institute of Technology, Atlanta, Georgia 30332-0250
Email: see <http://www.michaelshell.org/contact.html>

[†]Twentieth Century Fox, Springfield, USA
Email: homer@thesimpsons.com

[‡]Starfleet Academy, San Francisco, California 96678-2391
Telephone: (800) 555-1212, Fax: (888) 555-1212

[§]Tyrell Inc., 123 Replicant Street, Los Angeles, California 90210-4321

I. INTRODUCTION

[Include a brief description of the problem addressed by the chosen dataset. Include a brief explanation of the importance of your research regarding image classification .]

II. EXPERIMENTAL SETUP

A. Dataset

[Describe the dataset in details. Do not forget to include information on number of samples and number of classes. It is also interesting to include some sample images..]

B. Implementation details

[Frameworks, Machine configuration, etc..]

III. RESULTS AND DISCUSSION

A. Deep features comparison

[Comment on Figure 1.]

[Comment on Table I.]

TABLE I: Classification results with different deep representation levels.

Approach	O.A. (%)	A.A. (%)
<i>C1</i>	00.00 \pm 00.00	00.00 \pm 00.00
<i>C5</i>	00.00 \pm 00.00	00.00 \pm 00.00
<i>FC2</i>	00.00 \pm 00.00	00.00 \pm 00.00

B. Deep features combination

[Comment on Figure 2.]

[Comment on Table II.]

TABLE II: Classification results by using early fusion, late fusion, and [best feature].

Approach	O.A. (%)	A.A. (%)
<i>Early fusion</i>	00.00 \pm 00.00	00.00 \pm 00.00
<i>Late fusion</i>	00.00 \pm 00.00	00.00 \pm 00.00
<i>[best feature]</i>	00.00 \pm 00.00	00.00 \pm 00.00

C. Diversity evaluation

[Comment on Figure 3.]

[Comment on Table III.]

TABLE III: Classification results by using ensemble methods in comparison with original deep features.

Approach	O.A. (%)	A.A. (%)
<i>SVM-RBF (FC2)</i>	00.00 \pm 00.00	00.00 \pm 00.00
<i>Random Forest</i>	00.00 \pm 00.00	00.00 \pm 00.00
<i>Majority Voting</i>	00.00 \pm 00.00	00.00 \pm 00.00
<i>Bagging</i>	00.00 \pm 00.00	00.00 \pm 00.00

IV. CONCLUSIONS

[The conclusion goes here.]

ACKNOWLEDGMENT

The authors would like to thank...

REFERENCES

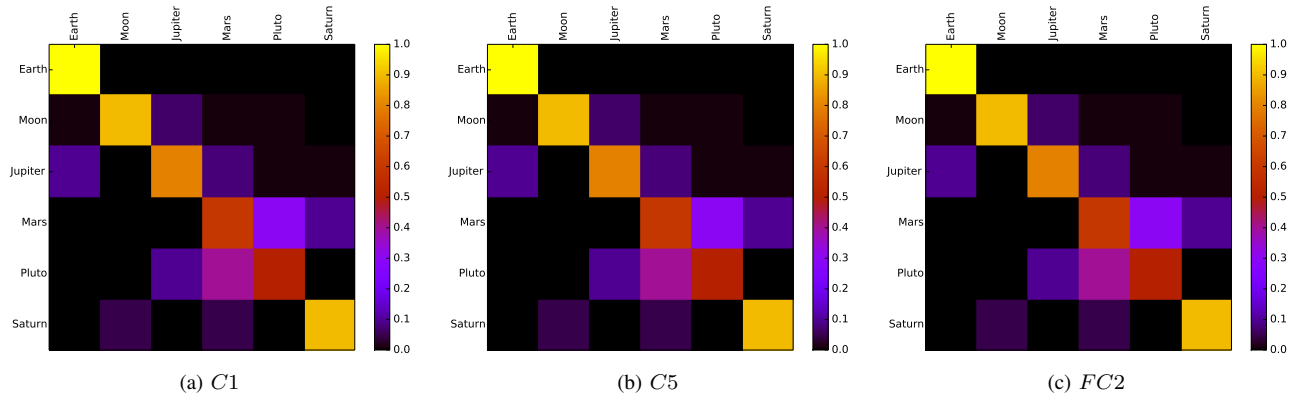


Fig. 1: Classification results for each class by using SVM-RBF with features $C1$, $C5$, and $FC2$, respectively.

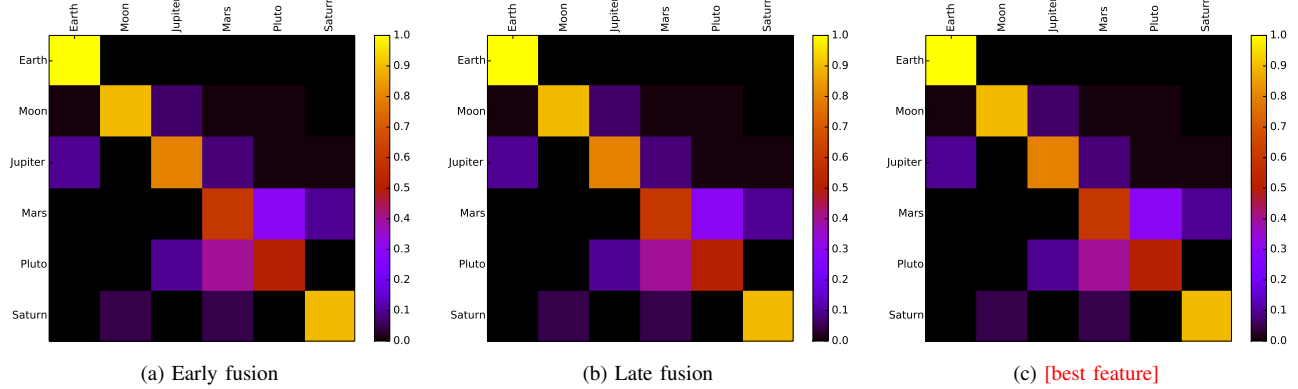


Fig. 2: Classification results for each class by using early fusion, late fusion, and [best feature].

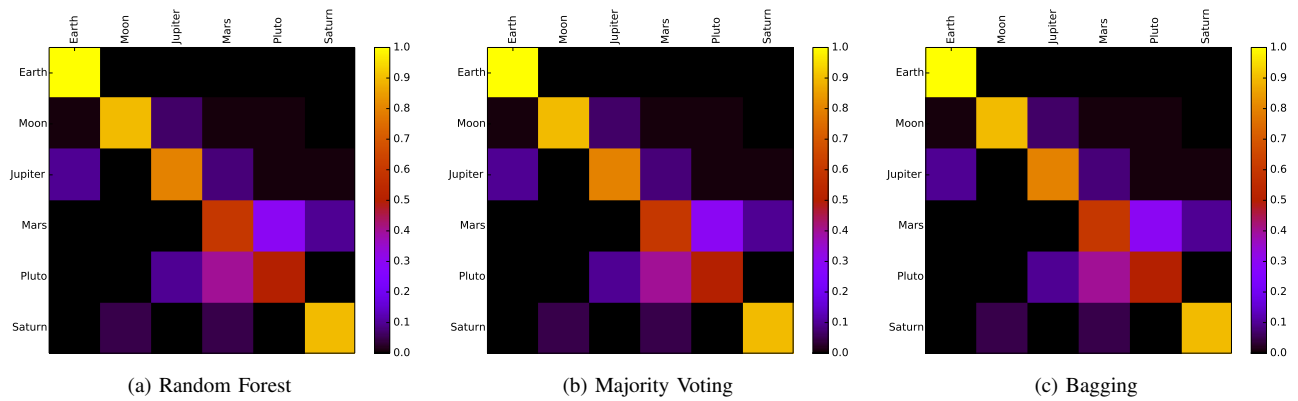


Fig. 3: Classification results for each class by using ensemble approaches.