

Parallelized Neuromorphic Impementation of a Self-Organizing Feature Map using RRAM

Bayley King, *Member, IEEE*, Siddharth Barve, *Member, IEEE*, and Andrew Ford, *Member, IEEE*

Abstract—The abstract goes here.

Index Terms—IEEE, IEEEtran, journal, L^AT_EX, paper, template.

I. INTRODUCTION

THIS is where our at least two line introduction goes. yep it sure goes right here.

II. THE SELF-ORGANIZING FEATURE MAP

This is where we talk about the actual algorithm, without diving into any metrics.

A. Evaluation of the SOFM Algorithm

Bayley, talk about how you implemented the algorithm here. Zeroing in parameter values. Mostly high level, no actual simulation results from metric evaluations yet.

B. The SOFM in Hardware

This is where I will talk about the circuit at its block and then schematic level. Talk about considerations into VLSI layout, but still staying around gate level.

III. SIMULATIONS

A high-to-low level simulation methodology was used to realize the hardware implementation of the SOFM.

A. Software Metrics for Parameter Optimization

Bayley, metrics would look real nice here.

B. Software Simulations of Hardware Properties

Sid, your C++ simulations talked to me and they said they'd want to be here

C. Hardware Simulations

This is where I will put my figures of my Cadence simulations.

IV. APPLICATIONS AND FUTURE WORK

Where we can speak to real-time battery powered applications. That, and if this just ends up being ridiculously fast without any sacrifice in accuracy... then talk about ASICs for any application.

V. DISCUSSION AND CONCLUSION

The line is fuzzy here between the last section and this one. But our last paper required a discussion section... so maybe we should omit the applications/future work section. Dunno

VI. CONCLUSION

The conclusion goes here.

APPENDIX A

PROOF OF THE FIRST ZONKLAR EQUATION

Appendix one text goes here.

APPENDIX B

Appendix two text goes here.

ACKNOWLEDGMENT

The authors would like to thank...

REFERENCES

- [1] H. Kopka and P. W. Daly, *A Guide to L^AT_EX*, 3rd ed. Harlow, England: Addison-Wesley, 1999.

Michael Shell Biography text here.

PLACE
PHOTO
HERE

John Doe Biography text here.

Jane Doe Biography text here.