

SUBSET CAPACITY OF FINITE SETS AND APPLICATIONS IN
COMPUTATIONAL NEUROSCIENCE

A Thesis

presented to

the Faculty of California Polytechnic State University,

San Luis Obispo

In Partial Fulfillment

of the Requirements for the Degree

Master of Science in Computer Science

by

Chandradeep Chowdhury

© 2023
Chandradeep Chowdhury
ALL RIGHTS RESERVED

COMMITTEE MEMBERSHIP

TITLE: Subset Capacity of Finite Sets and Applications in Computational Neuroscience

AUTHOR: Chandradeep Chowdhury

DATE SUBMITTED: December 2023

COMMITTEE CHAIR: Mugizi Rwebangira, Ph.D.
Professor of Computer Science

COMMITTEE MEMBER: Theresa Migler, Ph.D.
Professor of Computer Science

COMMITTEE MEMBER: Rodrigo Canaan, Ph.D.
Professor of Computer Science

ABSTRACT

Subset Capacity of Finite Sets and Applications in Computational Neuroscience

Chandradeep Chowdhury

Your abstract goes in here

ACKNOWLEDGMENTS

Thanks to:

- My parents, and grandparents.
- My thesis committee members.
- My collaborators, Patrick Perrine, and Shosei Anegawa.
- Cal Poly Graduate Education Office, for supporting me with a tuition waiver for academic year 2022-2023
- Cal Poly Cares, for supporting me with a Grant.
- Cal Poly Housing Administration, for supporting me with emergency housing for two quarters.

TABLE OF CONTENTS

| | Page |
|---------------------------|------|
| LIST OF TABLES | vii |
| LIST OF FIGURES | viii |
| CHAPTER | |
| 1 Introduction | 1 |

LIST OF TABLES

| Table | Page |
|-------|------|
|-------|------|

LIST OF FIGURES

| Figure | Page |
|--------|------|
|--------|------|

Chapter 1

INTRODUCTION