

Catalina Vajiac

SAINT MARY'S COLLEGE · 2018

UNIVERSITY OF NOTRE DAME · 2019

51686 Terri Brooke Dr. Granger, IN, 46530

☎ (574) 309-0472 | ✉ cvajiac@nd.edu | 🌐 www3.nd.edu/~cvajiac | 🐙 catvajiac | 📺 catvajiac

Education: 4-1 Dual Degree

University of Notre Dame

B.S. IN COMPUTER SCIENCE

GPA: 3.90/4.0

Notre Dame, IN

Aug. 2015 - May. 2019

Saint Mary's College

B.S. IN COMPUTING AND APPLIED MATHEMATICS

GPA: 3.91/4.0

Notre Dame, IN

Aug. 2014 - May. 2018

Research Experience

Growing Graphs with Synchronous Hyperedge Replacement Graph Grammars

RESEARCH ASSISTANT TWENINGER/PSHRG 📄

- Parsed temporal graph data to find a CFG for its growth
- Presented at the 11th International Conference on Graph Transformations (Toulouse, FR)

Notre Dame, IN

January 2018 — Present

Exploration of Numerical Precision in Deep Neural Networks

RESEARCH IN INDUSTRIAL PROJECTS FOR STUDENTS PARTICIPANT JIHANGJIE/AMD-RIPS2017 📄

- Studied resiliency of neural networks when exposed to lower numerical precision
- Analyzed effects of mixed and arbitrary precision
- Conducted through Institute of Pure and Applied Mathematics, sponsored by AMD

UCLA, California

June 2017 — August 2017

Computer-Assisted Image Analysis for Paper Analytical Devices (PADs)

RESEARCH ASSISTANT

- Created image analysis software to detect semi-quantitative colorimetric chemical tests
- Won Outstanding Poster Award at the 2017 Joint Math Meetings

Saint Mary's College

May 2016 — December 2016

Industry Experience

Business Support Solutions Team, IBM Cloud

SOFTWARE DEVELOPER

- Wrote tests and apis in nodejs for account management

IBM, Foster City, CA

June 2018 - August 2018

Projects

KittyKatBot modular Python IRC chatbot

kittykatbot 📄

Neural Networks senior thesis, implemented gradient descent in Python from scratch

senior_comp 📄

Dotfiles configuration files for i3wm, polybar, vim, tmux, bash, and useful scripts

dotfiles 📄

Honors and Awards

May 2018 **Donald E. Miller Award**, Mathematics and Computer Science Department

Saint Mary's College

Jan 2017 **Meritorious Winner**, Mathematical Contest in Modeling

COMAP

Jan 2017 **Outstanding Poster Award**, MAA Undergraduate Poster Session

Joint Math Meetings

Dean's List, All Semesters

Saint Mary's College

Clubs

President Math && Computer Science Club, Saint Mary's College

Vice-President Linux User's Group, University of Notre Dame

Web Administrator Society of Women Engineers, Saint Mary's College

Treasurer Pi Mu Epsilon: Indiana Epsilon Chapter, Saint Mary's College