# GABRIEL GRIGGS

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#### **EDUCATION**

#### University of Notre Dame

June 2014

B.A. in Applied Mathematics & the Program of Liberal Studies

Overall GPA: 3.81 Academic Honors

Dean's List: 6 out of 7 Semesters

Spring 2011 - Fall 2013

Student Advisory Council - Program of Liberal Studies

Fall 2012 - Present

Elected by students and faculty to present feedback to the department.

## **EXPERIENCE**

# Investment Office, University of Notre Dame

January 2011 - Present

 $IT\ Intern$ 

South Bend, IN

With assets valued at 8 billion dollars, Notre Dame's Investment Office manages one of the largest educational endowments in the country. Internship is 10-12 hours a week during the school year, full time during the summer.

- · Maintain and develop database, reporting and analytics solutions with the IT and Analytics Director such as Access Reports, Tableau Dashboards and Access Database with SQL Server Backend.
- · Develop Private Equity Report in Access and Dashboard in Tableau.
- · Research and assist in financial modeling, risk modeling and IT workflow solutions.
- · Create Excel / SQL model to mimic various indices.
- · Utilize programming familiarity in: VBA, SQL, MATLAB, C++, Access, Tableau and Excel.

## Finalist - McCloskey Business Plan Competition

April 2011

1 of 5 Finalists Selected From 113 Teams

Mendoza College of Business

- · Developed Budraps earbud accessories from inception (late 2007) over 3 years with a team of family members.
- · Assisted in: creating an LLC, filing a provisional patent, pursuing an international patent, manufacturing the initial product, creating a website and outsourcing the development of prototype to an engineering firm.

## Men's Rowing

Fall 2010 - Spring 2013

3 Year Team Member

University of Notre Dame

- · Pursued excellence in a sport that demands sustained year-long intensity, the ability to perform at a high level under pressure and a healthy team culture and atmosphere. Rowing is 15-20+ hours a week, year round.
- · 3rd Best Men's Club Team in the Country, Top 20 (including varsity teams)

Spring 2011

#### HONORS

Eagle Scout

Fall 2009

Graduate Award

Trinity School at Greenlawn - Spring 2010

Presented to a graduate who embodies: discovery of truth, creation of beauty, practice of goodness, rigorous exploration of reality and the free and disciplined exchange of ideas.

Kay Lewsen Award

Trinity School at Greenlawn - Spring 2009

Presented to a junior who demonstrates leadership and courage in living out the culture of the school.

#### RELEVANT COURSEWORK

## **Applied and Computational Mathematics**

## **Advanced Scientific Computing**

- · Covering the fundamentals necessary for high performance computing in science and engineering, this course has a specific emphasis on algorithm development, computer implementation and the application of these methods.
- · Specific Languages Used: C/C++, MPI and CUDA
- · Specific Applications: Solving Systems of Linear Equations, Sub-Domain Decomposition for Solving Time-Dependendent Partial Differential Equations on Large Domains, Matrix-Vector Multiplication with CUDA in C using grid/block topology.

#### **Numerical Analysis**

- · Developing a basic understanding of numerical algorithms and their implementation.
- · Specific Applications: Numerical Solutions to Non-Linear Equations, Interpolation and Polynomial Approximation, Numerical Integration and Differentiation, IVP Problems and Linear Algebra.

#### **Mathematical Statistics**

· Topics Include: Random Sampling Distributions, Estimators and Their Properties, Confidence Intervals and Hypothesis Testing, General Linear Model and Analysis of Variance

## Theory of Computing - Spring 2014

· The theory of automata and formal languages is developed along with applications. Various classes of automata, formal languages, and the relations between these classes are studied. Restricted models of computation; finite automata and pushdown automata; grammars and their relations to automata; parsing; turing machines; limits of computation; undecidable problems, the classes of P and NP.

# Non-Linear Dynamical Systems - Spring 2014

· Linear and nonlinear dynamical systems such as: Duffing's, Van der Pol's and Lorentz, Bifurcation Phenomena and Chaos.

Introduction to Probability
Applied Linear Algebra
Scientific Computing
Calculus Sequence / Differential Equations

#### SENIOR THESIS

## Program of Liberal Studies

- $\cdot$  The Senior Thesis in the Program of Liberal Studies is a year-long capstone project with a length requirement of 9,000 15,000 words.
- · My thesis is this: The problem of suffering is fundamentally an interpersonal problem and, as such, it cannot be 'solved' through analytic philosophy. A much more complete resolution to suffering can be found in the holistic 'way of life' presented in Dostoevsky's *Brothers Karamazov* as active love.