

# Ryan DuToit

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 ryandutoit

## Education

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### University of Minnesota

*Ph.D. Computer Science,*  
In Progress

Minneapolis, MN

2013–Present

### Drake University

*B.S. Computer Science, Math, Physics,*  
Summa Cum Laude

Des Moines, IA

2009–2013

## Experience

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### University of Minnesota, Dept. of Computer Science and Engineering

Minneapolis, MN

*MARS Lab Research Assistant*

2013–Present

- Designed and developed a Vision aided Inertial Navigation System for a mobile platforms
- Implemented image vocabulary tree for loop closure detection during filtering.

### Auburn University, Dept. of Computer Science and Engineering

Auburn, AL

*Undergraduate Researcher*

Summer 2012

- Developed an algorithm for UAV collision avoidance using RRT\* and line of sight maximization.
- Utilized ROS for simulating multiple UAVs flying in a constrained space.

### Drake University, Office of Information Technology

Des Moines, IA

*Programming Assistant*

2010–2013

- Developed and maintained University web applications, using the Struts framework
- Trained new employees on the web application stack

## Programming Languages, In Order of Mastery

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C++, C, Java, Objective-C, MATLAB, FORTRAN, perl, Python

## Development Platform Experience and Computer Skills

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**iOS:** Developed an iPad and iPhone App

**IDEs & text editors:** Xcode, Eclipse, vim

**Android:** Familiar with NDK and SDK

**Office Suites:** Microsoft Office, Google Docs

**Linux:** Majority of my development has been in a Linux/Unix environment

**Other:**  $\LaTeX$ , WordPress, HTML

## Published Works

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