# JAMES P. BRUSKA

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## CAREER OBJECTIVE:

My goal is to to conduct research in computer security and microarchitecture as a Ph.D. in Computer Engineering.

## EDUCATION AND AWARDS:

**Clarkson University**, Potsdam, NY — Class of 2018
Bachelor of **Computer Engineering** and **Computer Science**

- **Honors Program**

Cumulative GPA: **3.895/4.00** — 2014 – 2016

- Presidential Scholar (Freshman) & Dean's List (Sophomore)

First Place in the SURE Conference Signal Processing Poster Presentation — 2015

## LEADERSHIP:

**Teaching Assistant** – Introduction to Computer Science I & II — 2014 – 2016
**Core Server Maintainer** – Clarkson Open Source Institute — 2014 – 2016
**Vice President** – Clarkson ACM (Association for Computing Machinery) Chapter — 2015 – 2016
**Research Mentor** – Clarkson Architecture and Microprocessor Engineering Lab — 2015 – 2016
**Student Mentor** – Clarkson Honors Program — 2015 – 2016

## CO-CURRICULAR ACTIVITIES:

**Academic Research** — 2014 – 2016

- Pre-Freshman: Optimized an implementation of Professor Feng Hao's Biometric Cryptosystem
- Spring Freshman: Booted, flashed and attempted to implement the cryptosystem on an Inforce board
- Pre-Sophomore: Created a system in which the user of a Google Glass could determine another person's heart rate in real time
- Fall Sophomore: Experimented with the number of bits required to extract a server's private key by exploiting a memory buffer overread (OpenSSL Heartbleed)
- **Spring Sophomore:** Creating a machine learning algorithm that monitors hardware events in order to detect encryption downgrade attacks (FREAK)

**COSI (Clarkson Open Source Institute)** — 2014 – 2016

- Maintaining two virtual machine hosts for the lab (Bennu and Felix)
- Lead and participate in events that occur throughout the year such as the ITL Beowulf Cluster

## SKILLS AND ABILITIES:

**Programming Languages**

- Proficient: Java, C++, C, VHDL, MATLAB
- Used: Assembly, Racket/Scheme, Prolog, HTML, CSS, JavaScript, jQuery, XML, BASIC, Scratch

**Technical Knowledge**

- Linux, Virtual Machines, Git, GitHub, Android App Development, OpenCV, OpenSSL, AutoCAD, AutoDesk Inventor, Soldering, Microsoft Windows, and Microsoft Offices

## EXTRA-CURRICULAR ACTIVITIES:

**Snowboarding Instructor** (12 hours per week) **and Competitor** — 2009 – 2016
**Golden Knotes (A Capella Group)** — 2014 – 2016
**UV Tones (A Cappella Group)** — 2015 – 2016
**Clarkson University Student ACM Chapter** — 2015 – 2016

## SERVICE:

Church activities including food drives, event setup, and altar serving — 2010 – 2016
Azure Mountain hike and trash cleanup — 2014