

# Brian Cavanaugh

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<https://github.com/jagahanas>

## EDUCATION

### GWU

**MS IN COMPUTER SCIENCE**  
 Dec 2011 | Washington, DC

### VIRGINIA TECH

**BS IN ENGINEERING**  
 May 2004 | Blacksburg, VA  
 Dual Degree:  

- Ocean Engineering
- Aerospace Engineering

 Minor in Mathematics

## SKILLS

### PROGRAMMING

Expert:  
 Python • Matlab • Bash • IDL  
 Comfortable:  
 C • C++ • Java • JavaScript  
 Familiar:  
 $\text{\LaTeX}$  • Android • MongoDB

## TECHNICAL

## INTERESTS

Data Science • Data Analytics  
 Data Mining • Big Data  
 Machine Learning • Computer Vision  
 Remote Sensing • Multi-Sensor Fusion  
 App Development

## LINKS

Github:// [jagahanas](#)  
 LinkedIn:// [bcavs](#)

## EXPERIENCE

### THE MITRE CORPORATION | June 2007 – Present | McLean, VA

#### DATA SCIENTIST

Tracking Metrics in WAMI data Manmade object detection in images/FMV  
 Human Geography widgets, web server backend, etc Wrote several IDL/ENVI  
 programs for the processing of Hyperspectral Imagery (HSI): FSpECT, a Bayesian  
 evidence combination tool; HSI Exploitation tools for the analysis of crops;  
 ?Super Resolution? sharpening, etc Software Evaluation of Hyperspectral  
 Imaging Gas Identification algorithms: HIP, NSOM, HEAT

#### PROJECT LEAD

#### GROUP LEAD

#### TASK LEAD

- TODO:

### NAVAL SURFACE WARFARE CENTER, CARDEROCK DIVISION |

#### MECHANICAL ENGINEER

Sept 2005 – June 2007 | Carderock, MD  

- TODO:

## RESEARCH

### CORNELL ROBOT LEARNING LAB | HEAD UNDERGRAD RESEARCH

Jan 2014 – Present | Ithaca, NY

Worked with **Ashesh Jain** and **Prof Ashutosh Saxena** to create **PlanIt**, a tool which learns  
 from large scale user preference feedback to plan robot trajectories in human  
 environments. Publication submitted.

### CORNELL PHONETICS LAB | HEAD UNDERGRADUATE RESEARCHER

Mar 2012 – May 2013 | Ithaca, NY

Lead the development of **QuickTongue**, the first ever breakthrough tongue-controlled  
 game with **Prof Sam Tilsen** to aid in Linguistics research. Publication submitted.

## AWARDS

2014	top 52/2500	KPCB Engineering Fellow
2014	2 <sup>nd</sup> most points	Google Code Jam, Qualification Round
2014	1 <sup>st</sup> /50	Microsoft Coding Competition, Cornell
2013	National	Jump Trading Challenge Finalist
2013	7 <sup>th</sup> /120	CS 3410 Cache Race Bot Tournament
2012	2 <sup>nd</sup> /150	CS 3110 Biannual Intra-Class Bot Tournament
2011	National	Indian National Mathematics Olympiad (INMO) Finalist
2010	National	Comp. Soc. of India's National Programming Contest

## SOCIETIES

2014	top 12%ile	Tau Beta Pi Engineering Honor Society
2014	National	The Global Leadership and Education Forum (tGELF)
2012	National	Golden Key International Honor Society
2012	National	National Society of Collegiate Scholars