# CALEB KOCH

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## EDUCATION

**Cornell University** *2016 – 2020*
A.B. in Computer Science & Mathematics

**Galileo Magnet High School** *2013 – 2016*
International Baccalaureate Diploma & Advanced High School Diploma
*GPA: 4.0*
*Rank: 1/64*

## EXPERIENCE

**Mathematics Department, Cornell University** August 2016 – Present
*Course Assistant* *Ithaca , NY*

· Serve as course assistant for Math 1120 (Calculus II)
· Lead homework study sessions and help grade assignments

**US Army Corps of Engineers** June 2016 – August 2016
*Research Intern* *Alexandria, VA*

· Identified and developed interpolation methods for pattern mining trajectory data
· Developed software to test interpolation methods
· Created models to optimize interpolation procedures

**Morpheus Lab, National Institute of Aerospace** June 2014 – July 2014
*Research Intern* *Hampton, VA*

· Implemented PelcoD communication protocol on an Arduino platform for an infrared sensor on a UAV
· Fabricated ornithopter tail and wing components and revised lab procedures for ornithopter construction

## PAPERS/PUBLICATIONS/PROJECTS

**Identifying and Assessing Interpolation Methods for Mining Trajectory Data** 2016
*ResearchGate* *DOI: 10.13140/RG.2.2.33049.01123*

**A Probabilistic Method for Predicting Stochastic Behavior in Conway's Game of Life** 2015–2016
*Complex Systems* *Under Review for Publication*

**Reducing Angular Velocity by Means of Electromagnetism** 2015–2016
*Virginia Junior Academy of Science* *DOI: 10.13140/RG.2.1.3834.2241*

## TECHNICAL SKILLS

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|---|---|
| **Computer Languages** | C++, Java, R, HTML, Markdown |
| **Tools** | Arduino, R Studio, Git, LaTeX |

## AWARDS

**Jack Kent Cooke Scholar**
**Intel Science Talent Search Research Report Award**
**Virginia State Mathematics Champion, National Beta Club**