

Gavin "Eli" Elijah Jergensen
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Gavin Elijah Jergensen, or Eli, as his friends call him, always enjoyed math while growing up in Oklahoma City. Even after a well-rounded education through the International Baccalaureate Diploma Program at his high school, Eli found his love of math too strong not to pursue in higher education. Travelling an hour south to Norman to study both Math and Physics at the University of Oklahoma, he found himself surrounded by fellow scholars, many of whom were CS majors. He is slowly being converted from his monastery of pure math to the dark side of applied math in both Physics and Computer Science. In his free time, he can be found listening to podcasts in German, playing strategy games (also sometimes in German) and board games with friends, or programming.

Education:

Current:

University of Oklahoma (OU) Norman, OK, USA
Majors in Physics, BS (Honors) and in Mathematics, BS (Honors)
Minor in German
GPA: 4.00/4.00
Expected Graduation: May 2020

Prior:

Classen School of Advanced Studies (Classen SAS) Oklahoma City, OK, USA
International Baccalaureate Diploma
GPA: 3.96/4.00
Diploma Received: May 2015

Work Experience:

da Vinci Network Services Oklahoma City, OK, USA
Software Intern June 2015 - July 2015

- Worked on updating the website as well as general debugging of the Milan Medical software.

Research Experience:

Homer L. Dodge Department of Physics and Astronomy Norman, OK, USA
at University of Oklahoma

Undergraduate Researcher with ATLAS group at CERN June 2016 - Present

- Rediscovering the Higgs Boson at higher energies (13 TeV) in the decays of the Higgs to two leptons and two neutrinos.

Interests:

My whole life I have enjoyed finding patterns and using those patterns to solve puzzles. I love math not only for the tools that it provides but also for the beautiful symmetries and truths it unveils. I find it important that math be written in ways that are simple, formally correct, and intuitively clear. In addition to my love for math, I am very interested in AI and machine learning. I am fascinated by how we have managed to create machines that find patterns in large amounts of data and use those machines to tackle difficult tasks, like language translation and image recognition.

In my free time, I can often be found programming. Although my favorite language is JavaScript, my current project is working with a friend on an Open GL library in Java, which we are calling Glookit. Using parallel processing and various optimizations, this would help ease the process of rendering large numbers of objects to the screen through intuitive batch methods. When not programming, I am likely to be playing board games with friends. I particularly enjoy puzzle and strategy games!

Skills:

- Working Proficiency of German, able to handle almost all normal interactions and some specialized ones.
- Programming Experience, primarily in JavaScript and Java, as well as Perl, HTML/CSS, C++, and Python
- Familiarity with Open GL, NPM, the ROOT framework, JQuery, Git, and Linux.

Awards and Honors:

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|---|------|
| • Eagle Scout | 2013 |
| • National Merit Scholar | 2015 |
| • International Baccalaureate Diploma | 2015 |
| • William Schriever Award for Outstanding Scholarship
in Physics and Astronomy | 2016 |

Clubs and Organizations:

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|------------------------------------|---------------------------|
| • Boy Scouts of America | 2003 - 2013 |
| • Botball | Spring 2013 - Spring 2014 |
| ○ President of Classen SAS Chapter | Spring 2014 |
| • Mu Alpha Theta | Fall 2012 - Spring 2015 |
| ○ President of Classen SAS Chapter | Fall 2014 - Spring 2015 |

- OU Honors College Fall 2015 - Present
- Society of Physics Students Fall 2015 - Present
 - Officer in Training Fall 2016 - Present
- OU Math Club Fall 2016 - Present
- OU Game Developers Association Fall 2016 - Present

Volunteer Experience:

Cole Community Impact Organization Oklahoma City, OK, USA
 Kids' Club Volunteer August 2013 - March 2015

- Provided homework assistance, daily crafts and games, and a free meal to children of impoverished families every Monday through Thursday after school.

Outpost Oklahoma City, OK, USA
 Community Outreach Volunteer April 2009 - May 2015

- Worked to form and nurture relationships with impoverished families in Northwest Oklahoma City.

Experience Abroad:

German American Partnership Program at Berlin, Germany
 Käthe Kollwitz Oberschule June 2014

- Attended classes taught in German and gave presentations in English about life in Oklahoma and the United States.
- Traveled to see various cultural landmarks in both the Berlin area and the Black Forest