# Ryan Pals

ryanjpals@gmail.com
https://rjpals.github.io
(319) 930-2308

## EXPERIENCE

**Hobu, Inc**                                                                                          **Iowa City, IA**

*Software Engineer*                                                                          *Feb 2019 - Present*

- Rewrote OpenLayers & React based GIS application for National Geospatial-Intelligence Administration
- Submitted shader improvements to Potree (open source 3D GIS web renderer)
- Submitted new modules to PDAL open source point cloud processing software allowing for reading/writing of OBJ point cloud files files
- Built out 3D rendering application to assist in the researching of glacier movements (helheim.lidar.io)

*Software Engineering Intern*                                                           *May 2018 - Aug. 2018*

- Utilized Amazon Web Services technologies to create a cloud application that allows user-friendly utilization of existing company maintained open-source data processing software
- Contributed to GitHub documentation of open-source point-cloud data processing workflow
- Reviewed code changes and incorporated peer feedback as part of company code review process

**Rockwell Collins**                                                                        **Cedar Rapids, IA**

*Technical Intern Senior, Advanced Technology Center*                          *June 2017- Aug. 2017*

- Calculated anti-jamming performance of various GPS receiver designs as consultancy project
  - Extended existing simulation code to match client's specification
  - Assisted management in creation of report for outside firm
- Analyzed performance and accuracy of existing products using MatLab, eventually leading to discovery of a bug in a fielded system
- Extended existing Linux C codebase to allow GPS device to support new standards

*Technical Intern Junior, Supply Chain Quality Assurance*                     *June 2015 - Nov. 2016*

- Developed a tool that helps collect and organize supplier performance data using Visual Basic for Applications and native Excel functions
  - Automated the generation of executive reports and presentations from this data
  - Communicated with future users to obtain feedback for continuous improvement of development
- Automated extraction of data from SAP database software to create charts and graphs for presentations

## SKILLS

**Languages**

TypeScript/JavaScript, Python, Bash, C/C++

**Software/Technologies**

React, Redux, WebGL/ThreeJS, OpenLayers, GNU/Linux, vim, Docker, Node.js/Express, Django

## EDUCATION

**Iowa State University**                                                                              **Ames, IA**

*Bachelor of Science in Computer Engineering*                                      *Aug. 2015 - Dec. 2018*

- Final Cumulative GPA 3.35, Junior/Senior GPA  3.72
- Supplemental Focus Area in Cyber Security

- Awards and Scholarships:
  - College of Engineering Dean's List Fall 2017, Spring & Fall 2018
  - Award for Competitive Excellence
  - Cardinal Leadership Scholar Award
  - College of Engineering Scholarship (Boeing Company Award)