

**Kai Gay**  
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## Education

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- **Oregon State University** Corvallis, OR  
*Bachelor's degree in Computer Science* *Sep. 2017-August 2021*

## Publications

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- **A Visual Notation for Succinct Program Traces** *VL/HCC 2021*  
*Divya Bajaj, Martin Erwig, Daniel Fedorin and Kai Gay*
- **Adaptable Traces for Program Explanations** *APLAS 2021*  
*Divya Bajaj, Martin Erwig, Daniel Fedorin and Kai Gay*

## Work Experience

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- **Undergraduate Research Assistant** Oregon State University  
*Programming Languages, Haskell, Language Design* *Sep. 2018-Current*
  - Designed and implemented a programming language for exploring dynamic program explanations.
  - Developed Haskell-based interpreter, typechecker, query language, and other tooling.
  - Contributed to research papers published to VL/HCC and APLAS.
- **Teaching Assistant** Oregon State University  
*Programming Languages, Haskell, Education* *December 2020-March 2020*
  - Assisted the professor of the programming language theory course taught to over 200 students.
  - Tutored students during office hours to help with homework and projects, consisting of Haskell exercises and projects.
  - Organized and led study sessions attended by over 100 students.

## Selected Projects

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- **Capstone Project** Oregon State University  
*Haskell, Programming Languages, Education* *2019-2020*
  - Designed and wrote an education oriented programming language based around the computation inherent in board games.
  - Designed a type system with subtyping and powerful error messaging.
  - Wrote an interpreter with integration to an editor front-end written in React.
- **Personal Projects** *2016-current*  
*Haskell, Linux Administration, Web Design*
  - Maintained several Linux game servers, running modified games open to the public.
  - Online game coordinator, with a REST API written in Haskell using Servant and a front-end in React. Used websockets for automatic lobby updates.

## Skills

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**Languages:** C, Go, Javascript (including NodeJS), Python, Haskell, Lisp, R, Shell

**Tools:** Docker, Nix, Git, SVN,  $\text{\LaTeX}$ , Linux tools

**Miscellaneous:** Linux server management, excellent verbal and written communication skills, strong troubleshooting/debugging skills, leadership, teamwork, strong editing and proofreading skills.