

Shail Patel

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Education

- **Rensselaer Polytechnic Institute, (RPI)**
B.S. Computer Science, B.S. Cognitive Science

May, 2021
GPA 3.67/4.0

Experience & Selected Projects

- **Submittity** submittity.org
Open Source, Full Stack Software Development *Spring 2018 – current*
 - Open source auto-grading submission system used by RPI.
 - Developed a regrade request system, streamlining the process of challenging a grade and gave instructors a central area to handle requests, saving time for both groups and reducing the number of emails sent back and forth.
 - Enhanced UI when viewing grader feedback, allowing students to view and understand their grades better.
 - Debugged issues and worked with a team of students and professors to design and implement new features.
 - Worked with a Linux, Apache, PostgreSQL, and PHP/python tech stack.
 - Implemented a method to assign uploaded exams to students using vision processing, automating data entry and saving hours of work for instructors and TAs.
 - Optimized web pages to handle larger class sizes, increasing response time and stability.
- **Visual Logic** [GitHub/VisualLogic](https://github.com/VisualLogic)
Independent Research Project *Spring 2018 – current*
 - A purely graphical logic expression program using Existential graphs. Used to create and teach formal logic proofs in an introductory course.
 - Worked with professor van Heuveln to design and implement features across PC and WebGL build targets.
 - Produced and presented a research poster at RPI's undergraduate research symposium.
 - Implemented novel features by researching the original papers written by Charles S Peirce.
 - Communicated and raised awareness of a typically unknown area of logic.
- **Computer Programming Instructor** Clinton High School
Taught an introductory computer programming course *Summer 2014-18*
 - Developed curriculum aimed at middle school students with no computer science skills.
 - Engaged students and parents in STEM concepts and exploring what computer science is.
 - Introduced students to programming by writing applications and games in Java.
 - Taught robotics by demonstrating First Robotics Competition (FRC) programming challenges

Core Technical Skills

Languages & Software: C, C++, C#, PHP, Python, Haskell, Java, \LaTeX , JavaScript, Unity, git,

Related Courses & Clubs: Intro to Algorithms, Data Structures, Computability & Logic, Computer Organization, Principles of Software*, Operating Systems*, Rensselaer Center for Open Source (RCOS) *Summer of 2019

Publications

- A Graphical System For Logical Reasoning Using Existential Graphs *RPI Cognitive Science Dept.*
Shail Patel, Bram van Heuveln
- Facilitating Discussion-Based Grading and Private Channels via an Integrated Forum *SIGCSE 2019*
Andrew Aikens, Gagan Kumar, Shail Patel, Evan Maicus, Matthew Peveler and Barbara Cutler

Awards and Honors

- Hack Tech Valley 2018 Finalist *Spring 2018*
CityCube: A web app that allows people to connect in cities by finding events [GitHub/cityCube](https://github.com/cityCube)
- HackRPI 2019 Wolfram Award Winner *Spring 2018*
The OpenBook Project: A replacement for traditional textbooks [GitHub/OpenBook](https://github.com/OpenBook)
- Rensselaer Medalist *Spring 2016*
100,000 dollar scholarship recognizing math and science excellence