Shail Patel

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Education

- **Rensselaer Polytechnic Institute,** *(RPI)* *May 2021*
  B.S. Computer Science, B.S. Cognitive Science GPA 3.60/4.0

Core Technical Skills

Languages: C, C++, C#, PHP, Python, Haskell, Java, JavaScript, HTML/CSS, R

Software & Tools: git, Unity3D, Laravel, , RStudio LaTeX

Courses: Intro to Algorithms, Data Structures, Computability & Logic, Principles of Software, Operating Systems, Computer Communication Networks, Open Source Software, Computer Vision*, Game AI* **Fall of 2019*

Work Experience

- **Submitty** submitty.org
  auto-grading and homework submission server used by RPI *Spring 2018 – current*
  - Full stack development in a Linux, Apache, PostgreSQL, and PHP/python tech stack
  - Implemented a QR code scanner to detect student IDs and separate batches of student exams automatically, saving hours of manual data entry from instructors
  - Designed and developed a system to detect and scan handwritten student ID numbers on exams through computer vision and an OCR model
  - Google Summer of Code 2019 summer mentor, reviewed and help implement an internal REST API
  - Wrote PHPUnit tests and selenium end to end tests for continuous integration and taught other members on automated testing

- **Visual Logic** GitHub/VisualLogic
  Undergraduate Research Project in Cognitive Science *Spring 2018 – Spring 2019*
  - Research into formal and symbolic logic through software development
  - Built graphical interface to manipulate Existential graphs in order to teach formal logic
  - Used Unity game engine and C#
  - Worked in a research group led by a professor to implement specific features and designs
  - Produced and presented a research poster at RPI's undergraduate research symposium.

- **Computer Programming Instructor** Clinton High School
  Taught an introductory computer programming course *Summer 2016, 17, 18*
  - Developed a curriculum aimed at middle school students with no computer science skills
  - Engaged students and parents in STEM concepts and explored computer science topics
  - Introduced students to programming by writing applications and games in Java.
  - Taught robotics programming by demonstrating FIRST Robotics Competition programming challenges

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

Personal Projects

- **The OpenBook project** GitHub/OpenBook
  A replacement for traditional textbooks and ebooks *Spring 2019 – current*
  - Built an interpreter to read a markdown-like syntax to generate digital books in the form of HTML pages
  - HackRPI 2019 Wolfram Alpha award, 15th place overall

Awards and Honors

- Rensselaer Medalist *Spring 2016*
  100,000 dollar scholarship recognizing math and science excellence

- Rensselaer Dean's Honors List *Fall 2018 – current*
  Grade point average of 3.50 or better and have no grade below C