Shail Patel

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Education

- **Rensselaer Polytechnic Institute,** *(RPI)* — *May, 2021*
  B.S. Computer Science, B.S. Cognitive Science — GPA 3.8/4.0

Experience & Selected Projects

- **Submitty** — submitty.org
  Open Source Software Development — *Spring 2018 – current*
  - Open source auto-graded 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
  Independent Research Project — *Spring 2018 – current*
  - A purely graphical logic expression program using Existential graphs. Used to create formal logic proofs and to teach formal logic in an introductory course.
  - Worked with professor van Heuveln to design and implement requested 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.
- **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.
  - Communicated with parents about course.
  - Introduced students to computer science by writing applications and games in Java.
  - Taught robotics by demonstrating First Robotics Competition programming challenges

Core Technical Skills

Languages & Software: C++, C, C#, PHP, Python, Haskell, Laravel, Twig, Bootstrap, 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*

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

Leadership Roles

- First Robotics Competition *(FRC)* — Clinton High School
  Programming Lead — *2014-17*
  - Wrote Java programs to complete FRC autonmous challenges.
  - Worked with drivers and operators to develop an intuitive control system.
  - Taught new members about robotics programming.