

Apoorva Bhagwat

513-641-7503 | bhagwat@cmu.edu

EDUCATION

CARNEGIE MELLON UNIVERSITY

BS IN COMPUTER SCIENCE

Expected May 2018 | Pittsburgh, PA

School of Computer Science

Cum. GPA: 4.0 / 4.0

Dean's list (five semesters)

COURSEWORK

Great Theoretical Ideas in CS

(Teaching Asst \times 3)

Computational Discrete Math

Abstract Algebra

Imperative Programming

(Teaching Asst)

Computer Systems

Functional Programming

Theory of Programming Languages

Compiler Design

Parallel Data Structures and Algorithms

Probability and Computing

Machine Learning

Artificial Intelligence

SKILLS

PROGRAMMING

Skilled:

C • Python • Java • OCaml

Standard ML • HTML/CSS3 • \LaTeX

Proficient:

C++ • JavaScript • x86 assembly

Familiar:

PHP • SQL • Haskell

FRAMEWORKS

Flask • Tornado • Node.js

OTHER TOOLS

Unix Shell Scripting • Git

SPOKEN LANGUAGES

English • Hindi • Marathi

Sanskrit (basic) • Mandarin (limited)

EXPERIENCE

GOOGLE | SOFTWARE ENGINEERING INTERN

May - August 2016 | Mountain View, CA | About Borg

- Worked on the Borg team at Google. Developed automated analyses of test logs to help improve monitoring of Borg cells.

LIBERTYX | DEVELOPER INTERN

May - August 2015 | Boston, MA | website

- LibertyX is a cash on-ramp for the US bitcoin economy. As my primary project, I developed an asynchronous client-server framework based on WebSockets for smooth integration with LibertyX's partner bitcoin services (Python and Node.js).
- Also contributed to the internal automated testing and deployment system.

CARNEGIE MELLON | TEACHING ASSISTANT

2015 & 2016 | Pittsburgh, PA | website

- 15-122 (Principles of Imperative Computation) : Responsible for holding lab sessions and office hours for this introductory data structures + systems class. The first half of the class is taught in C0 (a type-safe and memory-safe educational sibling of C), so it also teaches students basic ideas about programming languages. The final assignment for the class is a virtual machine for the C0 language.
- 15-251 (Great Theoretical Ideas in Computer Science) [current] : Responsible for holding recitations and grading proofs for this CS theory class. The class surveys topics like automata, computability, complexity theory, graph theory, logic, proof theory, randomized algorithms and cryptography.

AWARDS

- 2015 Among the top 480 in the William Lowell Putnam Mathematical Competition
- 2015 Invited to FooBar (Google's programming challenge)
- 2014 Represented India at the 12th International Linguistics Olympiad (Beijing, China)
- 2014 All India Rank of 456 in the Joint Entrance Exam (Main) for the Indian Institutes of Technology
- 2014 Finalist in the Indian National Olympiads in Physics, Chemistry and Astronomy
- 2014 AP Scholar with Distinction Award
- 2010 The National Talent Search Fellowship of India

PROJECTS

- 2016 Designed and wrote a compiler for the C0 language. Also extended the language with parametric polymorphism
- 2015 Register Machines : designed an assignment for a theoretical CS class at CMU that involves programming in the register machine model and a proving Turing-completeness of this model. Wrote a small preprocessor and an optimizing interpreter for the language, and an autograder for the assignment.
- 2015 Problem designer for the National Linguistics Olympiad of India. View the first paper
- 2015 CalSync : created an Android app that lets users click pictures of event flyers/posters and automatically extracts date/location information from the picture. Developed at PennApps Fall 2015.
- 2015 Surroundify : Created a web app that lets users play music files on different devices in a synchronized way, and lets users define sound effects and runs them. Developed at HackCMU 2015.
- 2011 Wrote a subtitle tweaker in Java that can adjust timestamps to fix unsynchronized subtitles.