Avi Vajpeyi

Contact

+917 715 9580
avi.vajpeyi@gmail.com
avi.vajpeyi

Programming

C/C++ ★★★★★
Obj-C ★★★★☆
Python ★★★★☆
Java/C# ★★★☆☆
Matlab ★★☆☆☆
Mathmtica ★☆☆☆☆
1 star ~500 lines

Recent Courses

General Relativity
Computational Physics
Algorithm Analysis
User Interface Design
Prog Languages
Comp Organisation

Non Academic Interests

Rock Climbing
Varsity Track Team
Taekwondo
Math Modeling
Puerto Rican Salsa
Programming Puzzles

Links

github.com/avivajpeyi
unity.com/avivajpeyi
linkedin.com/in/vajpeyi

Education

08/14–05/18 **B.A. Physics and Computer Science** The College of Wooster
Cumulative GPA: 4.0
Awards: Dean's List and Joseph Albertus Culler Prize in Physics

Research

06/16–08/16 **LIGO Undergrad Research—Binary Black Hole Detection** LIGO Caltech
• Wrote Python code and edited scripts to calculate the Bayes Factor for noise events in LIGO strain data from the 2015 observation run.
• Documented and presented research findings at LIGO Caltech.

06/15–06/16 **NSF Physics Research—Avalanching Bead Piles** The College of Wooster
• Analyzed the effect of drop height and cohesive forces between beads on avalanche behaviors. Tracked motion with C and Matlab code.
• Presented research at American Physical Society conference 2016.

08/16–Now **Software Engineering Assistant—GitKeeper** The College of Wooster
Created python scripts for an automated grading system.

01/16–05/16 **Independent Research—Chaotic Scattering in a Complex Topography**
• Developed an OS X application with Objective-C to study effects of changing parameters on the systems' chaotic nature.
• Discovered a new method of evaluating chaotic scattering with valleys.
• Studied numerical integration techniques (like RK4).

06/15–06/16 **Sophomore Research—Code Reading** The College of Wooster
Collected data from peer-reviewed articles to analyze code reading patterns.

Projects

11/16–Now **Study of UI in Videogames**
Developed and A/B tested an FPS zombie survival game.

03/16–04/16 **Depth First Search Maze Solver**
Created program to construct mazes using equivalence classes and the Union-Find algorithm. Solve the mazes with depth-first searchs.

09/16–10/16 **Trajectory Calculations for Spacecrafts**
Collaborated on a project to plot trajectories of rockets nearby planets.

03/16 - 04/16 **Finite Quantum Well Applet**
Created and applet for the time-dependant Schrodinger Wave Equation

Teaching Experience

Teaching Assistant for Data Structures and Algorithms, Modern Physics Lab, Global Engagement, and Leadership for a Better World.

Activities & Leadership

• Participated in OH/IO Hackathon and ACM, MCM, UPC Contests
• Certified Student Leader, National Conference on Student Leadership, Washington, D.C.
• Co-Chair, South Asia Committee, Student Services (in Student Gov.) & Table Tennis Club