

Nikhil Patel

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EDUCATION

University of California - Berkeley

2015-2019

Computer Science major; expected graduation of 2019

Coursework: • Structure & Interpretation of Computer Programs (CS61A) • Machine Structures (CS61C)

• Data Structures & Advanced Programming (CS61B) • Discrete Mathematics & Probability (CS70)

TECH SKILLS

Web: HTML5/CSS • Javascript • jQuery • D3.js • backbone.js • Ruby on Rails • Bootstrap

General: Java • Python • C • Assembly (MIPS) • Lisp (Scheme) • SQL

Mobile: Swift & Objective-C • SpriteKit (iOS games) • LibGDX

Tools: Git • Unix • Photoshop • Illustrator

PROJECTS

Trello Calendar ([DayCal.io](#)) 🔄 *D3.js, backbone.js, HTML/CSS, Trello API*

- Developed an open-source, client-side webapp which allows users to create events from data in their Trello account.
- Implemented a custom interactive hourly calendar view (which persists across web sessions and can sync back to Trello).
- Currently planning on packaging & releasing the calendar view as an open-source D3.js submodule.

MIPS Assembler (Desktop) *C, Assembly (MIPS)*

- Wrote an assembler in C which converts MIPS Assembly Language text files into binary/machine code instructions.
- Handles jumping (intra- and inter-file) and branching using symbol & relocation tables.

Puffin Run (iOS) *Swift, SpriteKit*

- Developing an iOS infinite runner game with simple controls, procedurally-generated maps, an in-game store, and a global leaderboard.

Text Editor (Desktop) *Java, JavaFX*

- Developed a minimalist, cross-platform text editor with greedy word wrapping, file input/output, variable text sizing, and cursor movement (arrow keys & clicking). Speedy insertions/deletions and text rendering, even for large files.

Free & For Sale (Web) 🔄 *Ruby on Rails, Bootstrap, HTML/CSS*

- Designed and developed an open-source, responsive webapp for college students to buy & sell items.
- Supports user accounts via the Devise gem, Gravatar integration, item management, and commenting functionality.

Minecraft Plugins (Game) *Java, Bukkit API*

- Created & contributed to many open-source Minecraft server-side modifications, both alone and in collaboration.
- The projects I wrote entirely, or significantly contributed to, have received over 300,000 downloads cumulatively.

EXPERIENCE

Bukkit Developer Staff

2012 - 2014

Selected to be part of a small team (~15 staff) that verified the safety of thousands of Minecraft server-side modifications submitted to the community (~400,000 members). Decompiled Java binaries and perused the entire source to ensure that submissions complied with community standards and were free of malicious or deceptive code.

EXTRACURRICULARS

Berkeley Quantitative Investing *Python, NumPy/SciPy, Quantopian APIs*

2016 - Present

- Implement medium-frequency stock trading algorithms which exploit high-level investment strategies.
- Heavy use of computerized data analysis, including statistical analysis and mathematical modeling.