Nikhil Patel

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EDUCATION

University of California - Berkeley
Computer Science major; expected graduation of 2018
Coursework: · Algorithms, Complexity, and Computability · Artificial Intelligence · Low-level Software ·
· Data Structures · Discrete Math for CS & Probability · Linear Algebra · Multivariable Calculus ·

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 & CPU (Desktop)   *C, Assembly (MIPS), Logisim*
· Wrote an assembler in C which converts MIPS Assembly Language text files into binary/machine code instructions.
· Then, designed a simulated pipelined CPU (and accompanying ALU) to execute those instructions.

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.