

Vivek Seth

Innovator, Hacker, Developer

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Education & Skills

Rutgers University (2012 - 2016)

Computer Science | GPA 3.86 | SAT 2280 (M: 800, CR: 760)
Scarlet Scholarship and Dean's Scholarship
Academic Excellence Award, Dean's List all Semesters

Coursework | Algorithms, Data Structures, Distributed Systems, Internet Technology, Operating Systems. Computer Security,

Skills | Objective-C/Swift+iOS, JavaScript+Node.js, C, Java, Python, SQLite, MySQL, Git (source control)

Employment

Apple | Software Engineering Intern

- Dramatically improved PDF saving performance on iOS and OS X ($O(1)$ algorithm instead of $O(N)$)
- Implemented new system for syncing reading position of PDF documents between iOS and OS X devices. Position is embedded in file using XATTR feature of file system to minimize data required for sync.
- Unified three different PDF viewing experiences that currently exist in iOS under common framework.

<http://bit.ly/1xWG92q>

Khan Academy | Software Engineering Intern

- Implemented entry point for Khan Academy iPad app to improve conversion (<http://goo.gl/VImP6K>).
- Created system for opening in-app content using URL scheme which significantly improved QA efficiency.
- Addressed performance and asynchronicity issues to make user interactions smooth & pleasure to use.

Rutgers 250th Anniversary | Lead Developer

- Team lead of four to build official Android and iOS apps for Rutgers 250th anniversary.
- Designed component for newsfeed of events and media to connect students, past and present, to campus.
- Architected interactive walking tours of campus to highlight history with accompanying quizzes.

<http://bit.ly/1FGm6eS> (Targum Article)

Rutgers Day App | Sole iOS Developer

- Developed official Rutgers University app for largest annual Rutgers event (80,000 attendees).
- Created asynchronous data update and sync using AFNetworking framework and SQLite.
- Utilized CoreLocation (GPS) and Google Maps for navigation to events and booths.

Leadership

<http://rumad.us/> | <http://bit.ly/1pzMS4o> (Targum Article)

President | Rutgers Mobile App Development

Organized semi-annual RUTechMeetup event of 100 attendees discussing tech, entrepreneurship and design.

<http://www.tedxrutgers.com/>

Co-founder and Tech Officer | TEDxRutgers

Currently leading tech-committee of 4. Website design, video recording, and live-streaming for event of est. 400 attendees.

<http://rutgersdiya.blogspot.com/>

Co-President | DIYA

Organized events to promote South-Asian culture. Largest event had 500 attendees. Fundraise approx. \$2K to support education efforts for under-privileged South-Asian children.

Side Projects

Voted Best Project: Khan Academy Hackathon

Brought KA's CS platform to the iPad using block-based programming language Blockly. Won more prizes than any other teams. Considered for a potential future product.

<https://github.com/vivekseth/NYTimes-Sneak>

NYTimes Paywall Vulnerability

Found authorization vulnerability in NYT Paywall. Prompted NYT to offer a paid summer internship.

<https://github.com/vivekseth/Quick-Stream>

High Speed Video Streaming

Created tool that utilizes CDN mirrors to stream videos hosted on popular streaming services many times faster than normal. ("Pyramid Broadcasting" 1995).

<https://github.com/vivekseth/VSSPritz>

iOS Speed-Reading Framework

Built open-source speed-reading framework inspired by Spritz. Auto Layout and Interface Builder compatible. Available as CocoaPod.

Reverse Engineered GoPro App Protocol

Used Wireshark to monitor network traffic from GoPro iPad app to camera.

Microsoft Kinect Gymnastics Trainer

Analyzed Kinect Skeletal Tracking data to detect gymnastic positions.