

**Kenrick Rilee**

240-350-0419

[kenrick.rilee@gmail.com](mailto:kenrick.rilee@gmail.com)

[cricketlet.github.io](http://cricketlet.github.io)

## **WORK:**

Full Stack Engineer at PlanGrid (2015-current, 14 months)

- *Python (Flask):*  
Worked on automating the process of downgrading users with failed payments.  
Worked on the initial version of our public API.  
Worked on our feature-flagging system.  
Rewrote and added tests to fragile sections of our payments code.  
Focused on increasing test coverage and decreasing patching in our tests.  
Gave well-received talks to all of engineering focusing on managing state (OO vs FP) and organizing code for testability (i.e. hoisting dependencies in procedural code, dependency injection for OO code).
- *Javascript (React, Node):*  
Worked on internal tools for support & sales.
- *Docker:*  
Containerized the services on my team using docker compose such that they could be easily run in arbitrary combinations and configurations.

Software Engineer at Codecademy (2013-14, 10 months)

- *Rails:*  
Learned and applied TDD as it applies to both feature development & bug-fixing.
- *Javascript & HTML:*  
Worked on the 'codebits' feature which allows users to create their own websites.  
Helped implement a rebrand of the entire Codecademy website.  
Owned the ideation, prototyping, and implementation of live-coding widgets.

Co-founder of Rex/Mapsaurus (2012-2013, 1 year 3 months)

- TigerLabs University Accelerator (summer 2012), raised an angel round of \$200k (late 2012).  
Built an Android app recommendation service that was used by 60,000 people.
- *Python (Flask):*  
Built a distributed Google Play web crawler (w/ multiple IP addresses to avoid throttling).  
Built a recommendation engine which performed a PageRank inspired BFS on crawled app-to-app relationships.  
Built a search engine which leveraged app-to-app relationships to provide results unbiased by keyword hacking.  
Performed event analytics which tied user events to data about apps our users later installed.
- *Android:*  
Designed & built a smooth interface for exploring a network of app-to-app relationships simply by swiping.  
Built a batch uninstaller which allowed users to easily uninstall multiple apps at a time.  
Built a multi-pane tablet app, leveraging my open-source library *PanesLibrary*.

## ACADEMICS:

*Princeton University:* (BSE, Computer Science)

- Coursework: advanced graphics, graphics, networks, computer vision, operating systems, systems, algorithms & data structures, computational physics, number theory.

*Eleanor Roosevelt High School Greenbelt, MD*

- Valedictorian: class rank 1st out of ~800 students.

## PROJECTS:

(much more at [cricklet.github.io](http://cricklet.github.io))

*Android or Java:*

- *PanesLibrary*: open-source library for creating flexible phone/tablet apps.  
[github.com/cricklet/Android-PanesLibrary](https://github.com/cricklet/Android-PanesLibrary) (300 stars on GitHub)
- *AutoWallpaper*: updates your wallpaper with images from Reddit's API.  
[github.com/cricklet/Auto-Wallpaper-for-reddit-](https://github.com/cricklet/Auto-Wallpaper-for-reddit-) (10,000 downloads)
- *Dead Arcade*: 2D platformer, built completely from scratch. (20,000 downloads)
- *2nd Place Princeton Facebook Hackathon (2011)*: built an RTS game from scratch in 22 hours.
- *2nd Place Hack Princeton (2012)*: built an Android app recommendation algorithm.

*C or C/C++:*

- *Hatched*: OpenGL renderer built from scratch, implementing VSMs, SSAO, and real-time hatching through an auto-reloading shader pipeline powered by RAI, lambda closures, shared\_ptr, etc.  
[github.com/cricklet/Hatched](https://github.com/cricklet/Hatched)
- *Wolfenstein 3D AI*: a program that beats the first level of Wolfenstein 3D by analyzing rendered pixels and spoofing input events. I worked on localization via range-finding and particle filters.
- *Advanced Graphics*: path tracer, laplacian mesh editing, image analogies.
- *Graphics*: ray tracer, mesh manipulation, shaders, OpenGL, etc.
- *OS*: boot-loader, kernel, scheduling, virtual memory, file system.

*Javascript:*

- *Star Command*: a toy star-ship simulator I built to experiment with stateless, typed Javascript.  
<https://github.com/cricklet/star-command>
- *Rest In Peace*: a <canvas/> game built from scratch in 48 hours for Ludum Dare 30.  
[github.com/cricklet/ld48-rip](https://github.com/cricklet/ld48-rip)

*Other:* C#, Python, React, Mocha, FlowType, Flask, Docker, Mongo, Redis