Bastion | Bootcamp Syllabus

Open Source Driven Hackversity | **Learning, Building, Gamified**

Bastion is a collective of hackers and developers creating a training platform that integrates directly with the marketplace. Addressing some pain points of corporate recruitment, Bastion users can evaluate and train their skills to stay on top of the job market. Bastion technology is gaming technology, our platform’s ranking system is designed to keep users engaged in leveling up their IRL career. Users can increase their ranking by experiencing our selection of training programs. Freelance gigs & contract work will be available on the market for users to compete for.

Early adopters will be pioneers of a new education system. Two teams will function during our early stage development: Bug Bounty Hunters ( the “Red Team”) and the Development team. The Red Team course will start by focusing you in the core techniques of white hat hacking and you will learn how to use tools to find exploitations that clients will compensate for. Our “Bastion” requires a monthly quota from our revenue to be fulfilled first, but after that is complete, all bounty pay will be split between active ranked Hunters. Stronghold quotas will be used for Hackathon trips and infrastructure upgrades.

**Red Team Goals**

* How to identify, exploit, and remediate the top web security vulnerabilities, as well as many other arcane bugs
* How to properly handle cryptography
* How to design and review applications from a security standpoint
* How to operate as a bug bounty hunter

**Development Team Goals**

* Select a skill specialization aside from Web Security to pair with your learning program
* Quantify our learning progression to build an internal ranking system and résumé generator
* Wireframe this education/training program into a **Gaming Interface**, this will be the flagship representation of our Stronghold Platform
* Imagineer new technology that could be implemented into the future Stronghold program

# Ranking System

Gamified approach. Students will gain an amount of Bounty Credits after completing tasks, training and jobs. This is expected to evolve over time as the course develops.

1. Dogfooder
2. Novice
3. Journeyman
4. Expert
5. Elite

Gameful ideas can and do work when employed in a thoughtful, meaningful way that supports the intrinsic motivators of the given task. However, that's very tricky, as it's way too easy to misaligned incentives (e.g. giving a badge for archiving email quickly, what's the result going to be?) which is why actual game designs take years to perfect before they are released. There are often simpler, quicker wins for improving employee motivation. (Source: [Lewisham](https://news.ycombinator.com/item?id=8009702))

# Skills Courses Overview

**Red Team Hacker Training Program**

* [“How to Become a Successful Bounty Hunter”](https://www.hackerone.com/blog/become-a-successful-bug-bounty-hunter)
* [“Learn How To Hack”](https://www.hackerone.com/hacker101)
* [Hacker101 Course Directory](https://www.hacker101.com/)
* OverTheWire
* HackTheBox.eu

**Create a Portfolio Website**

* Use github pages (<https://pages.github.com/>) or any domain and hosting option you can afford yourself
* Write your first introductory blog about yourself, aspirations, accomplishments, dreams, goals and/or mission
* Display the skills you currently have or wish to have graphically (with level % bars) or textually, these skills will be found all over this curriculum

**Developer Basics**

* Development Cycle
* GitHub Tutorial
* Version Control
* Terminal Text Editor

**Web Development**

* User Experience Design
* Front End Development
* Back End Development

**Data Analytics**

* Data Mining
* Descriptive Statistics
* Exploratory Data Analysis
* Confirmatory Data Analysis

**Enterprise Networking**

* The OSI Model
* Routing & Switching
* Server Virtualization

**Video Game Development**

* Game Design
* Rendering, Modeling
* Physics Engine
* Oculus VR

**Advanced Programming**

* Test Automation
* Machine Learning

**Marketing**

* Ameya Deshmukh as possible POC to design curriculum
* Writing
* Acquiring Clients

**Writing**

* Blogs
* Technical Writing
* White Papers
* Policy writing

**Graphic Design**

* Jordan Singtalay as possible POC to design

# Technology Assets

Below is a table of all the applications we currently use for development. In the future, we either utilize APIs to integrate these applications within our own program, or we create similar features within our own application to make some applications obsolete. Long live the Bastion.

|  |  |
| --- | --- |
| Tool/Application | Link & Usage |
| **Slack** | [Main Development Channel](http://bastion-net.slack.com) |
| **GitHub** | [Bastion](https://github.com/lintonictv/Bastion): Front End Library  [Ztealth](https://github.com/jeytuan/ztealth): HackerOne Data Scraper |
| **Visual Studio** | Decom’d [Internal](http://bas7ion.visualstudio.com) Wiki, possible solution for future Devops |
| **Quip** | [Technical Documents](https://ztealth.quip.com/folder/ztealth) |
| **Google Drive** | [Bastion Storage](https://drive.google.com/open?id=1wnvk25uEIU90UQZHT0NBdIP_DD8VKmUK) |
| **Front End** | [Gatsby JS](https://www.gatsbyjs.org/tutorial/part-one/) |
| **Heroku** | [Test Application](https://bastion-net.herokuapp.com/) |
| **Canva** | [Mock Design File](https://www.canva.com/design/DAC3ZlZUztI/share?role=EDITOR&token=m9_EW3lCdBL6fWkaTJN9BA&utm_content=DAC3ZlZUztI&utm_campaign=designshare&utm_medium=link&utm_source=sharebutton) |
| **Imgur** | [Mock Design Pages](https://imgur.com/a/pHfcrEc) |
| **Udemy** | Courses found in #xp channels on Slack |

# Product Backlog

### **Minimum Viable Product (MVP) Features**

**Target Completion: August 2018**

* Splash Page
  + Training & Evaluation
  + Job Market
  + Gamification
* Registration Page
  + Account Storage
* Internal Portal
* Ranking System v0.1
* Résumé Parser
* Concept Developer Training Sequences
  + Create GitHub account
  + Generate & Bind SSH keys to GitHub account
  + Pull from your first Repo, a template for a Professional Portfolio webpage
    - Users submit: Profile Picture, Education, Projects, Aspirations, etc.
    - Provide resources to then learn more
    - [DEMO] Web Development ranking points go up
* Catalogue example of additional curriculum
  + [Developer Basics] Using a linux text editor, vim vs nano

### **Phase 2 Features**

**Target Start Date: September**

* LinkedIn Parser
* Standardized Curriculum
* open GL

# Similar Entities & Possible Affiliates

Below is a list of relevant market places for freelancers and contractors. We should study and experience some of these providers to get a feel for the competition of the freelance marketplace. Some providers we could emulate or even user API.

FlexJobs

[UpWork](http://upwork.com)

* Mind the importance of a Proposal,
  + Constructing a proper plan on executing a project
  + Prove competence with experience or knowledge
  + Structuring your payment rates
* Pay notice to their Profile design, particularly their Testing features
  + Successful tests increase your chances of getting jobs
  + Prove your skills and impress potential clients by taking a few free Upwork tests! The more relevant tests you pass, the more professional you look. Read the test policies & rules before starting any tests.
* A lot of features available through their API
  + <https://developers.upwork.com/>

ClearVoice Marketplace

LinkedIn Profinder

Media Bistro

Problogger

Craigslist

Moonlightwork

[Producthunt](https://www.producthunt.com/)

Crowdfund

# Thoughts on Scaling

* As more skills are added, subject matter experts are needed to design new courses ( also be peer reviewed)
* Bootcamp Structure
  + Group Lesson Learning, deploy exercises together first
  + Reproduce Skill exercised solo thereafter
* Need to make a Task System
* Work towards Decentralization (DApp), move away from IOT clouds and secure our own
  + Using [Graphite](https://graphite.readthedocs.io/en/latest/overview.html)
* Be ready to Onboard Christopher Vu on June 11th, 2018
* Recruitment: We need to search for computer science students or students who are interested in hacking to join our team. There needs to be some sort of incentive and maybe we can advertise by either listings or just casually recruit in places where we think that such students would be present to hear us out.
* Need to have a Vendorship Policy
  + As we scale our Marketplace, it is unclear if a case like utilizing Upwork’s API will net us any profit since Upwork takes a 20% cut of their Freelancers.
    - Of course competing directly against Upwork’s business model is an extremely uphill battle.
    - We should include their job listings in our marketplace, just to help bolster our volume.
    - But from a business standpoint, we must seek other avenues for our own profitability.
  + Work directly with staffing agencies to discuss possibilities of funneling our users for project based opportunities
  + Our Read Team hacker division
* After MVP is released, focus on standardizing the Training Material through peer review