
Nirmal Lankathilaka

Web & mobile engineer, hacker
Linux/Web applications/Android

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I've been developing software for twelve years and working with technologies ranging from desktop apps to mostly the web and mobile. I've got an eye for aesthetics and a flair for design.

Technology Experience

Web

<i>back-end</i>	Node.js+Express, .Net (MVC), Java/JSP, PHP, Python, Ruby on Rails
<i>front-end</i>	HTML5+CSS3, Angular.js, Bootstrap, jQuery, Coffeescript
<i>platforms</i>	Android & iOS, Google App Script, Facebook Apps

System/Desktop

Java, .Net (Mono/Visual Studio), Ocaml, C++/Objective-C, Python, Vala, Visual Basic

Also a heavy Linux & FOSS user, mobile app & game developer and cyber-security enthusiast.

Achievements & Participation

- Third place in the Sri Lankan games' category of *Microsoft ImagineCup 2016*
- Fifth place in *ACES Coders v5.0*
- Participated in several hackathons including the first *TNL OnStage Hackathon*
- Participated in *Cyber Security Quiz* for *Cyber Security Week* in 2015
- Participated in *Jaffna IT Week* in 2015
- Volunteer instructor at the department

Industrial Experience

I completed my internship of six months at *99X Technology* as a software engineer.

Recent Projects

GenCBS – (github.com/nirmall/genCBS)

Research and developing a system that integrates evolutionary algorithms (e.g. genetic algorithms) in solving dynamic scheduling problems with a large number of constraints (e.g. resource-scheduling in large hospitals).

This is our final-year research project, under the mentorship of *IFS*.

Areas: Evolutionary algorithms, dynamic scheduling problems in various domains.

Contribution: Algorithm implementation, literature-research, proof-of-concept application with UX, presentation.

"Bandiya"

A side-scrolling game about a regularly-bullied kid who finds himself in an out-of-the-world situation where he has to fight for the survival of the human race and make sacrifices for the greater-good.

Won the third-place in *Microsoft ImagineCup 2016* local competition under the category of games.

Areas: Social implications of bullying, Unity engine, character & level design.

Contribution: Graphic and character design, idea refining, branding and marketing.

Easy Reload

An Android application that enables any local mobile user to scan the pin of a recharge card and automatically get credit without typing anything. It also features sharing of credit and other related tasks.

Areas: Image processing, UX, USSD

Contribution: UX design, USSD API integration, Android NDK

RunAway – (github.com/nirmall/RunAway)

A side-scrolling endless-run game targeted at *Android* and *iOS*. The premise is a couple running away from the wrath of the girl's father. The players guide both characters through levels avoiding obstacles while facing new challenges.

Areas: HTML5 game engines, Unity engine, character & level design.

Contribution: Concept, implementing dual-character gameplay, graphic-design & art, branding and marketing

Shark – (github.com/nirmall/Shark)

A desktop app specifically engineered for network-sniffing that is OS-independent, intuitive, simple, and extensible, that was inspired by the use of *WireShark* in “*Capture-the-packet*” contests at Defcon.

Areas: Network protocols, JavaFX, UX, (on-going) developing a plugin API.

Contribution: Concept development & adaptation, core functionality, docs, project branding.

Open Weather API – (nirmall.github.com/OWA)

A project that connects advanced weather sensory probes distributed over a wide and potentially-remote area and exposes the collected data as a REST API over the web in realtime.

This data can be used to predict disasters such as floods, landslides and heavy rainfall (on-going phase).

Areas: Internet-of-things, sensor-modeling, wireless network setup, optimization and maintainance.

Contribution: REST API server, data filtering and calibration at probe-level, transmission protocol, front-end app to showcase real-time data variations and identifying potential threats.

mobifinder

Mobile/web app to easily continuously narrow their choice of a smart/cellphone by tuning a couple of sliders representing specifications.

Areas: Web-scraping, data-mining, Angular.js, responsive designs, PHP.

Contribution: Front-end, custom web-scraping module.

Open-source contributions and community

Wikimedia, Jekyll, Elementary OS, Mono, LESS CSS, GitHub Atom and Notepad++

Web Presence

<i>GitHub</i>	github.com/nirmall
<i>LinkedIn</i>	linkedin.com/in/nirmall
<i>Website</i>	nirmall.github.com

Education

B.Sc. Eng. in Computer Engineering
University of Peradeniya, Sri Lanka
(*Graduated October, 2016*)

Other Skills & Interests

- Talented artist & animator, graphic & web designer
- Fluent English speaker & writer; basic knowledge in French, Spanish, Mandarin
- Creative-coding hobbyist and game artist
- Tech. Blogger
- Electronic musician, guitarist, composer and singer

Extra-curricular Activities

- Member of the *Rotaract Club* and participant of social projects
- Voluntary organizer of the first *TEDxKandy* event
- Committee member of Association of Computer Engineering Students (*ACES*)
- Co-founder of the university's *Hackers' Club*
- Regular speaker and organizer of *PeraLUG* events
- Contributor to *ACES Coders v6.0* questions
- Voluntary temporary instructor in Computer Engineering at the faculty
- Teacher in the "*Arunalla*" project for schools with inadequate facilities
- Active member of faculty's "*Art Circle*" and co-writer/co-director of drama

References

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