



# new faces

## of FreeBSD BY DRU LAVIGNE

This column aims to shine a spotlight on contributors who recently received their commit bit and to introduce them to the FreeBSD community.

In this installment, the spotlight is on **Jason Bacon** who received his ports bit in November, **Koichiro Iwao** who received his ports bit in March, **Sean Fagan** who received his src bit in April, **Vincenzo Maffione** who received his src bit in March, **Fernando Apesteguía** who received his ports commit in March, **Tom Jones** who received his src bit in April, and **Eric Turgeon** who received his ports bit in March.

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Tell us a bit about yourself, your background, and your interests.

- **Jason:** I've been into computers since high school, when I took the very first computer class our school ever offered. I was immediately hooked by the stimulating challenges and immediate feedback inherent in computer programming. Onto college, I chose computer science over chemistry in the 11th hour for my undergrad major. Sort of fell into a master's program for logistical reasons immediately after. After teaching computer science full time for a few years, I pursued a PhD program in biology, but was forced to withdraw due to family responsibilities. I'm still a biologist at heart, but my computer science background has served me well and I've managed to find rewarding work as a developer and systems manager.

I now support research computing and high-performance computing at UW Milwaukee, working with researchers in many fields, but mainly engineering and genomics.

I'm a staunch operating system and language agnostic and will always campaign against religiosity in computing. Self-limiting idealism hurts everyone from end-users to sysadmins. I always look openly at alternatives and choose the most efficient tool for the job. Sometimes it's BSD, some-

times Linux, sometimes Windows.

I've also been involved in sports since a young age, including 4 years of tennis and cross country running in high school, and playing tennis for our university team. Since college, I've changed my focus to Chinese martial arts, cycling, XC skiing and sea kayaking. (I live a few blocks from a beautiful stretch of Lake Michigan shoreline park land on Milwaukee's south side.)

Philosophically, the closest label that would fit me is Buddhist/Taoist. I believe in complete openness, destruction of the ego, and that any hint of anger is a sign post pointing directly toward room for personal growth.



- **Koichiro:** I was born in Kyushu Island located southwest of Japan and I'm still in Kyushu. I am an upstream developer of xrdp which offers Unix-like operating systems a graphical login to a remote client via Microsoft Remote

Desktop Protocol. I'm working on an xrdp project on improving FreeBSD compatibility and handling non-ASCII characters such as CJK. I'm also interested in desktop virtualization. You should already know how useful GNU screen and tmux are. Desktop virtualization will provide GUI-like version of GNU screen. You can resume an existing remote session from everywhere over the network.



- **Sean:** I've been interested in Unix-like systems since I decided to write a PDP-11 simulator in C instead of using an over-loaded RSTS/E system for the college assembly language course I was in.

I went from college to work for The Santa Cruz Operation, and spent most of my time there working on the XENIX port of Microsoft's C Compiler. I played with some kernel aspects (adding a simple form of ACL, just to see if I could), and when SCO came out with their SysVr3.2-based system, which for POSIX-compliance had job-control support, I set about making

it work (which also involved porting tcsh from BSD to SysVr3.2 and getting emacs to work with it). I was sending any patches to the open-source code back, and I also started writing some simple, low-level libc routines for the then-new 386BSD. This led to me working for Cygnus, which meant working more directly with open source, although it didn't get that name for a while.



● **Vincenzo:** I'm a Software Engineer and I live in Pisa, Italy. Currently, I'm a last year PhD student at the University of Pisa. My research interests include fast userspace networking, network virtualization, and kernel network drivers.

But most of all I love programming and operating systems. In my spare time I also enjoy playing piano, biking around and cooking.



● **Fernando:** My name is Fernando Apesteeguía. I'm a software developer living in Madrid (Spain). After I got my Master's Degree in Computer Science, I moved to Holland to work for ESA's YES2 project. It was extremely cool and we

were even granted a Guinness World Record for the longest man-made structure ever deployed in space. There I wrote software for the onboard computer running QNX. After that, I went back to Spain and joined Open Sistemas. Here, we use open source software to develop our solutions. I usually do C/C++ programming in Linux using Qt and DBus for IPC.

On the personal side, I live with my girlfriend who suffers from my lack of free time. I enjoy traveling as much as I can and practicing martial arts. I hold a 3rd DAN black belt in karate, which I've been practicing for the last 25 years, and I'm a black belt in other disciplines like SAMBO and Self Defense.



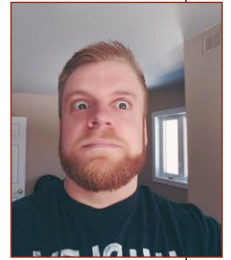
● **Tom:** I am a researcher at the University of Aberdeen in the North East of Scotland, where I work on Internet transport and standardization. For the past few years I have been working on replacing the Socket API with something

modern and adaptable in the EU NEAT Project (<https://www.neat-project.org/>).

Sometimes I have to get out from behind my com-

puter and move it to the local hackerspace, 57North Hacklab. Other times, if the weather is nice, I go further afield and set up my computer in a tent.

● **Eric:** I am the founder of GhostBSD and started to work for iXsystems last September as an Automation Engineer for the QA department. I am married to a wonderful woman named Karine, who is more than patient about me spending time working on GhostBSD, and I have one son named Samuel who turned six last January. Like his father, he likes computers and technology and also is a fanatic of Minecraft. I currently live in Dieppe city in New Brunswick, Canada. I speak French, English, and Chiac (French and English mixed together).



I did not finish high school but I am a curious guy that likes technology and am passionate about Unix, BSD, and desktop software. I learned C, shell script, and Python, but Python became my language of choice for almost everything that does not need to scale like C. I learn everything as I need it, so my knowledge of FreeBSD, Python, C, and even for my new career gets better as time passes.

I like to play with my son and appreciate having quality time with my wife. I love to read history, programming books, and the bible. I love to be involved in the City of Grace church and to have evening parties with our circle of friends. I like mountain biking on crazy trails, and train with PowerBuilder, but lately, I have been lazy with that. I love metal music and playing guitar when I have time.

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**How did you first learn about FreeBSD and what about FreeBSD interested you?**

● **Jason:** I've been involved in Unix development since before FreeBSD existed and have been running both BSD and Linux systems uninterrupted since the mid-1990s. I love FreeBSD's long tradition of solid performance and stability, as well as the devotion to clean and systematic management and software deployment. The FreeBSD ports system has few peers in terms of its size, capabilities, and flexibility. I can set up a FreeBSD system from scratch to serve most purposes in under an hour, knowing that I'll have very little trouble with it from that day on.

● **Koichiro:** I've been using FreeBSD for more than 10 years and remember FreeBSD 5.4 or 6.0 as my first FreeBSD. I started using FreeBSD as network gateways and routers when I was a college student. ipfw has simple syntax and is easy to

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understand. Also, dummynet is a great tool to control traffic and emulate real-world networks. To sum up, network features interested me in FreeBSD.

• **Sean:** After the first version of Linux kept panicking when using telnet, I instead switched to 386BSD for my personal computer, and that led to the other BSDs, and, eventually, focusing on FreeBSD a couple of months after it started.

The source-distributable BSDs were still very new at the time, and there was a lot of work that interested me. As has been typical in my life, I did a lot of library and utility work, and some supplemental kernel code. While taking McKusick's BSD internals class, I decided to write a version of procs, which I did with significant assistance to get the template down. Then once I had procs working, I started writing truss; these two remain my biggest single contributions. I also wrote some articles for Dr Dobb's Journal related to this.

• **Vincenzo:** I met FreeBSD for the first time at the university in a course where I learned the basics of UNIX systems administration. However, my first real interaction with FreeBSD source code only happened a couple of years ago, when I participated in a Google Summer of Code project. In this project I had a lot of fun playing with kernel bits and virtualization tools. I also had the chance to present my work at one of the FreeBSD meetings.

I have a strong interest in operating system implementation, and I like FreeBSD in particular because of its clean design and excellent documentation.

• **Fernando:** The first time I heard about FreeBSD was at high school. A friend of mine was an early Linux user and he told me about FreeBSD. A short time after that, I bought an issue of the Spanish version of PC World which included a copy of FreeBSD 4.2. It didn't work so well with my hardware, but I could install it and play with it for a while. After that I upgraded to 5.0, but I still used Linux more often. I think it was around 7.0 when I became mostly a FreeBSD user. I was impressed by its stability and that feeling has increased over time. I still own a 12-year-old laptop with just 1 GB of RAM running FreeBSD 11.0.

• **Tom:** I first ran PowerPC FreeBSD on a G4 iBook when I was distro hopping in 2008, but my adventure really started when in 2018 I joined the research group at the University of Aberdeen. At the time the group was working on standardization of a TCP modification called NewCWV (RFC7661). We had an implementation for Linux and the IETF

standardization credo is "rough consensus and running code" and it helps if there are implementations for as many platforms as possible.

There was talk of porting to a BSD operating system and I asked (well, maybe I demanded) to be involved. Porting work started in virtual machines on my desktop, but soon I had acquired some second-hand servers to build and run FreeBSD.

FreeBSD was the operating system of choice for the port because of the famously excellent TCP stack. Soon I started to miss the tools that were available on my FreeBSD development machines and decided I had to use FreeBSD as a desktop.

• **Eric:** It started that journey by being bored with having viruses on Windows XP and I wanted to become a hacker. I switched to PC Linux OS, moved to Mandriva and then to Ubuntu and felt kind of at home. On my quest to become an infamous hacker, I found "How To Become A Hacker" by Eric Steven Raymond around the same time as a life changing event that made me stop my journey to become a hacker. "How To Become A Hacker" talked briefly about BSD Unixes which caught my attention. I started to Google BSD, which started my path to FreeBSD. I installed FreeBSD 7.0 which was easier to install than XP, but the shell was my nemesis. So, I reinstalled Ubuntu, did more research, and found and tried PC-BSD 1.4. I did not like KDE, so I reinstalled Ubuntu on half of the disk, printed the whole FreeBSD Handbook and the docs to install and setup Gnome, and reinstalled FreeBSD on the second half. It is where all my love began for FreeBSD, and I started GhostBSD to have a Gnome equivalent of PC-BSD.

Today my primary interest in FreeBSD is GhostBSD and all my servers and VPS that only run FreeBSD. I am more interested on the Desktop side of FreeBSD than FreeBSD as a server, which is why GhostBSD started.

FreeBSD and Eric Steven Raymond's essay started my path to becoming a programmer, and from all the connections I made on IRC, I found a great career at iXsystems.

## How did you end up becoming a committer?

• **Jason:** I've been maintaining ports since around 2004, when I found that FreeBSD solved a lot of stability issues for us in fMRI research at the Medical College of Wisconsin. I currently maintain dozens of active ports and have a couple hundred more in my work-in-progress collection.

I was invited to become a committer twice. The first time was several years ago during a very hectic

period of my life and I reluctantly had to decline. The second time, about a year ago, I was still busy, but things were trending in the right direction, so I bit the bullet and accepted.

I also became a pkgsrc developer around the same time and it has been very interesting to compare the pros and cons of each project. I hope to help bridge the two for the benefit of both in the coming years. We use pkgsrc extensively to install the latest open source packages on our CentOS systems.

- **Koichiro:** I've been contributing to the FreeBSD Project for years, particularly as a port maintainer of xrdp. One day, I volunteered for a ports committer. Hiroki Sato, a Japanese core developer of FreeBSD, proposed me as a ports committer and finally I became one.

- **Sean:** I was a committer back near the beginning. However, in 2001, I started working at Apple, which, shall we say, frowned on me continuing that. So, there is a decade-long gap where I hardly ever did anything publicly visible. After Apple, I went to iXsystems, where I was, for the first time, working with FreeBSD full-time. However, most of what I did for the first couple of years involved non-OS code (installer and updater, primarily). Every once in a while, I would come across something I wanted to do that required OS changes, and most of those I emailed back to the last person to touch the files in question. Some patches are still currently at iX, and they need to go back.

In addition, I started porting some ZFSOnLinux changes back to FreeBSD, and these are too large to send as simple patches via email, so with the assistance of Alexander Motin and Kris Moore, I got my commit bit back (still probationally). But I am very much looking forward to getting the ZFS sorted scanning code back soon and finishing up porting the native ZFS crypto code.

- **Vincenzo:** I'm a maintainer of the open source Netmap project, which offers an API for applications to perform fast network I/O from userspace. Netmap runs on both FreeBSD and Linux, and its source code is currently hosted on GitHub. Although Netmap was already included in the FreeBSD tree, the code in there was not really maintained and was constantly out of date with respect to the upstream version. As a result, during the last AsiaBSDCon I was asked to become a committer to keep the FreeBSD Netmap code in shape and aligned with the upstream. I was very happy to accept.

- **Fernando:** After becoming a full time FreeBSD user, I started to contribute some port PRs. In 2011, I sent a couple of PRs porting some of the ports

listed in the WantedPorts page of the wiki. It was a fun thing to do and it allowed me to learn a lot thanks to the tips given by all the people who committed my patches. I even gave a couple of talks at my Alma Mater (Universidad de Valladolid) about FreeBSD and how to create ports. After some time, I thought it would be good to get more involved in the Project, so I started to end all my PRs with something like "Hey, I would like to step up in case there's someone who can guide me through the mentoring process." After some time, tz@ answered my call. tz@ and tcberner@ are my patient mentors. I'm still happily learning how to become a good ports committer.

- **Tom:** At the IETF in Prague last year, I was stood up for lunch and was invited to join a colleague and the Netflix crew instead. Over a Reuben sandwich, I got chatting with Jonathan Looney (my mentor) about the work I had done so far on FreeBSD. At BSDCam in Cambridge a few weeks later, Jonathan asked if I was interested in becoming a committer.

It actually took until the March IETF Meeting in London for me to speak to Jonathan and ask what steps I had to do to get the process started. Two weeks later I got the excellent email from Core.

- **Eric:** I was trying to help Koop on and off with MATE and Gnome when I had time. When I started work at iXsystems, I was a bit more active, and I tried to push MATE 1.20 out in ports, but Koop was not available, so Baptiste offered me a commit bit, and I said yes. Since Baptiste and I are in different time zones, Baptiste caused me to have a second mentor in the same time zone. I mentioned that on our chat at work and William Grzybowski offered to become my co-mentor. I got voted to become a ports committer, and the rest is history to be made.

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### How has your experience been since joining the FreeBSD Project? Do you have any advice for readers who may be interested in also becoming a FreeBSD committer?

- **Jason:** It's been a struggle to find time to finally master my porting skills, but with the help of my mentor (@jrm) and significant feedback from @mat and a couple others, I'm getting a handle on it and feel that I'm pretty close now. The mentoring program and well-developed tools (poudriere, phabricator, portlint, stage-qa, etc.) really help optimize the learning process.

Don't hesitate to join the team. The time you put into learning from other developers is a great

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investment that will pay off big in the long run. You'll learn from the vast experience of many who came before you how to solve problems more efficiently and produce solutions that are less likely to break and create more work for you down the road. It's a great opportunity to hone your skills in the company of a worldwide team of some of the best developers alive.

- **Koichiro:** Nothing has changed so far except I can commit changes by myself. I keep on contributing to the ports tree as before.

If you want to be a committer, keep contributing and create a good track record. It will prove you have enough experience and knowledge when you volunteer to become a FreeBSD developer.

- **Sean:** Read commit logs, read the mailing lists. Ask questions. Submit code--either patches or new code that should be in the system. Find a mentor. Learn subversion.

- **Vincenzo:** I've been a committer for less than two months, so I don't have enough experience to give meaningful advice.

However, I feel that FreeBSD is a very friendly community, open to new ideas and new people. This is something I really appreciate, as it is not very common across open source communities. I think the most exciting thing about contributing to open source projects is to see one's own work become part of something used by thousands of users. This is definitely something that attracted me and I think it may be interesting for people to think about becoming a FreeBSD committer.

- **Fernando:** So far, it's been great! People are really welcoming and nice. The peer review process via Phabricator is really good and something always worth using. The attention to details that all the developers put into their work impresses me. It is not enough if it works. It should work in the best possible way.

About advice: subscribe to the email list that

you are interested in ([freebsd-ports@](mailto:freebsd-ports@) for example). Read all the messages you can and you'll learn a lot. After that, you can send some patches. In the case of the Ports Collection, you can adopt an orphaned port, submit a new port, or just send updates to existing ports. For other subsystems like base, it is always good to have a look at bugzilla's database and find something you can help with. Also, don't be afraid to ask!

- **Tom:** The community has been amazingly welcoming. For me, joining the project has been a long journey. Writing code is just the first part, getting code accepted into upstream takes as much if not more work. The largest steps forward came from meeting people in person. I met Sevan Janiyan ([sevan@](mailto:sevan@)) at FOSDEM last year and he invited me to attend BSDCam.

Your first contribution should be something small; there aren't any boogiemens lurking on the mailing lists to shout your diff down. So, fix something, a command, man page or some documentation, and get involved!

- **Eric:** So far so good. I am pleased with everything I have learned lately and with Baptist, William, and Koop to help I am getting better at creating and maintaining ports. I have released MATE 1.20 in ports. I still have more to learn and everything is happening at a slow pace due to my involvement in a lot of projects.

For anyone who is interested in being involved in FreeBSD, it is simple to get engaged in whatever part of the project interests you. Join the forums, FreeBSD IRC channels, and the mailing list related to your interest. Start to help and work, sending your work to the related people, and sooner or later you will get a commit bit.

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**DRU LAVIGNE** is a doc committer for the FreeBSD Project and Chair of the BSD Certification Group.



**The FreeBSD Project is looking for**

- Programmers
- Testers
- Researchers
- Tech writers
- Anyone who wants to get involved

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