





The interview

# Geeksta rappers rhyme tech talk

The worlds of computer science and rap don't often mix, and that's probably a good thing. But since the tech industry was built on innovation, we think Armand Navabi and Dan Maynes-Aminzade are a couple of guys who deserve a look—and a listen. Their innovation blends the world of PhD candidate in computer science with the rough and raunchy world of hard-core rap. The result is a sweetly groovin', code-rich, sometimes very non-PC music genre known as CS Gangsta Rap, aka

Geeksta Rap. Never heard of it? That's not surprising. According to one of its practitioners, it appeals to about 1 percent of 1 percent of the tech community. Hear it, and you'll love it for its clever twining of tech terms with our lingua franca—or be reviled by its over-the-top usage of R- and X-rated lyrics.

One of the founders of CS Gangsta Rap, Navabi started out as Sir Code-a-Lot, but has upgraded his moniker to the pithier MCPlus+. Moving from Tehran, Iran, when he was 3, MCPlus+ grew up in a middle-class American suburb before landing in Purdue's computer science program. The 'burbs are also where Maynes-Aminzade, aka Monzy, came of age, before bringing his rap to Stanford.

Last year, Monzy instigated a rivalry between the two men, writing a rap song

that dissed MCPlus+, who in turn wrote his own dis track (see page 20 for sample lyrics). The contretemps has elevated the pair from the unknown to relative obscurity, with a few reporters and a German variety show taking a passing interest. *EE Times*' Mike Clendenin recently caught up with the two.

**EE Times:** How did you guys get into Geeksta Rap?

**MCPlus+:** As an undergrad, I knew a boy who was in CS with me and he started [studying] MIS [management information systems]. We had a friendly rivalry going [between MIS and computer science]. So I had to keep it real, so I came up with a track called "Hit Em Up," and it was a Sir Code-a-Lot track. So Sir Code-a-Lot started this CS Gangsta rap, and that

was basically an MIS dis, saying how they have no technical skills and can't compete. A lot of people liked it, and from there it just took off, making a few other tracks, like "AIM Pimp." Then, when I came to Purdue, some people heard my stuff and one of the guys had a studio up in Indianapolis, so we did it for real and came up with a new name, because we had a new thing and were doing it professionally.

**Monzy:** I'd always been a fan of hip-hop and wished I could be as cool as the rappers whose albums I listened to. Back in high school, I was in this rap group, but I dropped out when I realized how horrible we were and I didn't really pick it up again until I heard MCPlus+'s album [*Algorithms*] and I thought to myself, "Man I could top that easily."

**EET:** It sounds like you're kindling the rivalry.

**Monzy:** I don't really have any personal conflict with MCPlus+. In fact, I sort of secretly respect him, and to some degree I admire his work. But starting this rivalry was purely a career decision. My dis track was pretty harsh, but hopefully he'll think of it as bitter medicine. If it encourages him to rise to the next level and bring CS rap up to the forefront, then maybe that's good.

If some guy is making rap stuff about C programming, your average guy just isn't going to understand it and the news reporters won't [care], but all of a sudden there are these two nerd gangs that are swinging insults at each other, and that is a juicy story. Before all the drama, not all that many people knew about MCPlus+. He was interviewed on some guy's podcast and a few people linked to him in their blogs, but now he has been in *Wired* [Magazine]. For a geek rapper, I don't think you can hope for much more than that.

**MCPlus+:** I don't even take that [stuff] seriously. I'm from Phoenix, so I rep East and West Coast. Monzy's a punk. If we had a real West Coast rapper, then I'll come out against anyone who wants to take on MCPlus+. I ain't scared of nobody.

I'm the only CS Gangsta rapper. I'm the founder and the only one out there now besides Monzy. I'm looking forward to hearing some new [stuff] from him. (*He pauses.*)

The truth is, what Monzy did with this beef he started, it gave us a lot of popularity, you know, and I can't hate on that. We're trying to get ourselves known, and I wouldn't be as known if it wasn't for Monzy, and he wouldn't be as well known if it wasn't for me.

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**Monzy**  
(Dan Maynes-Aminzade)

Born: Madison, Wis., 1979

Education: BS in computer science, Carnegie Mellon University; MS in media arts and sciences, Massachusetts Institute of Technology (MIT MediaLab). Currently in third year of the computer science PhD program at Stanford University.

Honors: Featured in *Maxim* Magazine for inventing "You're In Control," the first interactive video-game urinal.

Album: *The Pimping Lemma*

Best songs: "Perfect Hashing," "Drama in the PhD," "Strongly NP-Hard"

Web sites: [www.monzy.com](http://www.monzy.com) (blog), [www.monzy.org](http://www.monzy.org) (portfolio)



**MCPlus+**  
(Armand Navabi)

Born: Tehran, Iran, 1982

Education: BS in computer science, University of Arizona. Currently completing master's at Purdue University and is a candidate for the PhD program.

Honors: Purdue University Department of Computer Science Most Promising Rapper

Album: *Algorithms*

Best songs: "End of File," "Computer Science for Life," "Have to Code"

Web sites: [www.mcplusplus.com](http://www.mcplusplus.com), [www.csgangstarap.com](http://www.csgangstarap.com)



## The interview

### Geeksta rappers

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**EET:** Where do you get the ideas for your songs?

**MCPlus+:** I get them from class. A professor will say something and I'll think up some lines and jot down four or five lines, something like that, and that's how it starts. Then I fill in the rest when I get home. Basically, every rap you hear is built up from about four lines that I come up with in class.

**Monzy:** I also get a lot of them from CS classes that I'm taking. Or, last year I was studying for qualifying exams and a lot of ideas just popped out at me. I'll be reading a paper and I'll see the term "Hoare semantics" and I'll chuckle and think, well, I could use that in a rap song.

**EET:** Do you work pretty hard on drafting these songs?

**MCPlus+:** No, it doesn't take me long at all. I could release another album if I could get the time in the studio. But getting the PhD ain't easy.

**Monzy:** I work pretty hard. I'd say my rap evolves over the course of a few days or a few weeks, so I'll think of short verses of rap when I'm in class or reading a paper

and then I'll jot it down, and later on I'll try to merge those little snippets into some coherent whole.

**EET:** Is it easy to blend these two styles—tech talk and rap—together without it feeling over the top, or is it supposed to be over the top?

**Monzy:** Well, rap culture and computer science culture are pretty different. But I like to play off the dual meanings of things. So for me, the best kind of lyric is one that uses the term with different meanings in computer science and rap music. Like in rap music, Yak is how rappers refer to cognac, but in computer science Yacc—Yet Another Compiler Compiler—is a grammar-based parser generator. Or in computer science, linear probing is a technique for resolving collisions in hash tables, but in my rap song I use it to refer to sex.

**EET:** How far do you think you're going to take this thing?

**MCPlus+:** The way I see it, MCPlus+ is for real. That's no joke. But is Armand Navabi for real? I'll leave that to the peo-

ple to decide. When I'm MCPlus+, there ain't no joking around. It's straight CS Gangsta rap. We have a small but loyal following. But you know what? I'm trying to branch out and put CS Gangsta rap on the map. I'm not gonna sell out like Dr Dre sold out. I'm keeping it real. And if not a lot of people understand where we're comin' from, then that's just how it goes.

**Monzy:** I don't have any delusions of a serious music career. I think the nerdier and more obscure your jokes are, the few-

'There's no CS girls. But we'll branch out. They'll come.'

er people will appreciate them, but then, those people who do appreciate them will find them that much funnier. So, in my music I tend toward the extremely obscure—I target that 1 percent of 1 percent that listen to

hip-hop and have degrees in computer science, and can make these leaps of understanding required to appreciate my lyrics. So a true geek rapper will never get widespread popularity, but I'm comfortable with that.

**EET:** Does this in any way help make computer science and engineering cooler?

**MCPlus+:** I'm trying real hard, but, like, it is what it is. There are a lot of geeks. But I got love for CS; I got love for geeks. It ain't a negative thing. I am what I am.

**Monzy:** I'm all about shattering stereotypes about computer scientists and trying to give people a picture of someone who does computer science and isn't afraid to admit it, and isn't a big dork. But in the bigger picture, I don't think it's going to be that effective.

There is this Silicon Valley engineer [who] spent a bunch of his savings starting this rap label where he was going to write songs about engineering and science, and the goal was to get kids interested in this stuff. It's a noble goal, but, unfortunately, his music is completely terrible, and I can't imagine anyone ever thinking it was cool to listen to some dorky Indian dude rap about how many transistors fit on modern microchips, much less being fired up by this rap song to pursue a career in engineering.

**EET:** I don't want to be too harsh, but for the minuscule amount of fame that the two of you have had, are there any benefits? CS girl groupies?

**MCPlus+:** Oh, man. You know how it goes. You know how it goes. Actually, I

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## Geeksta rappers

FROM PAGE 18

ain't gonna lie to ya—there's no CS girls. But we'll be branching out. Give it time; give it time. They'll come.

**Monzy:** The most interesting thing that happened to me was that a TV producer from L.A. contacted me and said she had been commissioned by a German variety

show to do a short feature on nerd rap. So she asked if she could come to Stanford and film me and my geek posse in our natural habitat. I said yes, but then I realized I didn't have a geek posse.

So I called up a few of my friends and we dressed up in these ridiculous nerd rapper outfits, with Linux T-shirts and soldering irons in our belts and Blackberries on chains around our necks, and did goofy [stuff] like cruise around campus

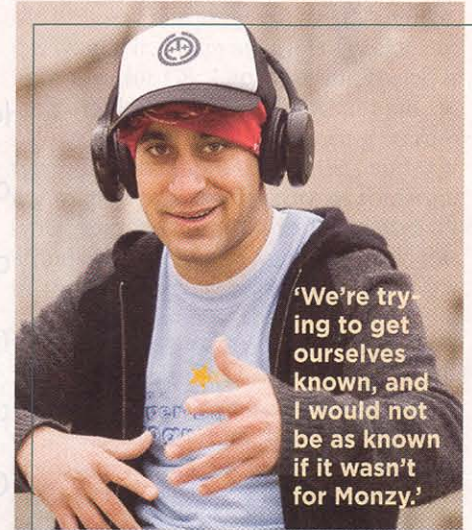
on our bikes and smash up old electronic equipment.

**EET:** Did you get paid?

**Monzy:** No. There are no riches or women or hotel suites.

**EET:** No dancing next to scantily clad women in the video?

**Monzy:** No, it was just a bunch of dorky guys. ■

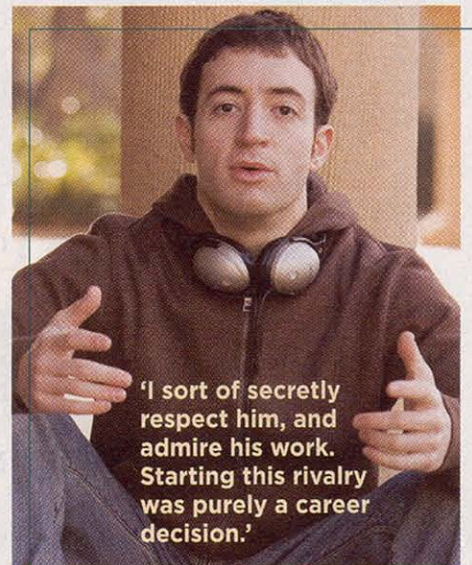


'We're trying to get ourselves known, and I would not be as known if it wasn't for Monzy.'

### MCPlus+

Sample lyrics:

There is so much drama in the phd,  
and now monzy you tryin' to rap  
like me  
but as much as you try fool, you cant  
be me  
that's like a poly-time algorithm for TSP,  
your sorry half-Persian ass wants  
some beef,  
I'm the root node kid and you're  
just a leaf,  
so show me respect before i remove  
you in log n time,  
cause you know my trees are balanced  
all the time,  
man, ill eliminate you like  
dead code,  
I don't discriminate; I'll delete  
your node



'I sort of secretly respect him, and admire his work. Starting this rivalry was purely a career decision.'

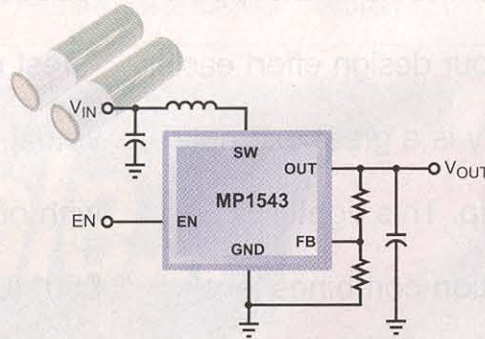
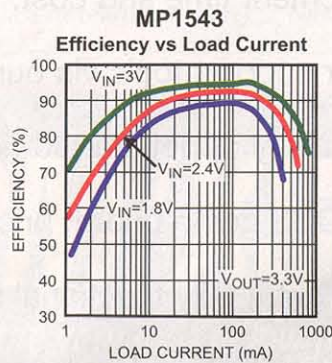
### Monzy

Sample lyrics:

DWORD to your moms, I came to  
drop bombs;  
I've got more rhymes than San Jose's  
got dot-coms.  
I rep the Farm like 50 reps Queens,  
With more power than multitape  
Turing Machines.  
Blowin' up the rap scene faster than  
factorial functions,  
I'm dope like PNP transistors and I'll  
saturate your junctions.  
By the time you've rhymed one line,  
I've already busted ten;  
You rap in exponential time and I'm  
big-O of log(n).

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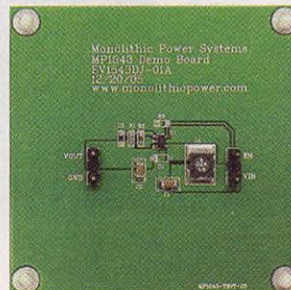


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MP1527	2.6 - 25	25	1.3MHz	4x4 QFN16
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