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Short Story – Final Revision

### Design Principles

Lucius is pressing the mouth of a gun against my forehead. The cold metal touching my skin is somehow refreshing. It clears my mind. Pun intended.

“Please don’t do this,” I whimper. I am standing rigid, afraid to breathe.

“Sorry, Peter, I can’t have anyone finding out our little secret. Not yet.”

He’s going to kill me. I can see it in his face. I’ve been friends with him long enough to sense these kinds of things. His nostrils are flared. His pupils dilated, green irises contracted to tight rings.

“What do you mean, ‘Not yet?’”

Lucius laughs. I close my eyes.

Lucius and I know a secret about a company called MetraCorp. I work for MetraCorp. Lucius works for MetraCorp. We are neighbors in MetraCorporate Housing. Is the trend clear?

The only thing in my life not having to do with MetraCorp is my mother. I don’t have much family to speak of, besides her. Cancer made sure of that. My father didn’t die of cancer, as far as I know. He may still be alive somewhere, but he abandoned us when mom got sick. He betrayed us. I like to think that he died alone, with a big black tumor suffocating his brain.

I talk to my mother on a regular basis, and during these talks she keeps me informed about the latest scandals at the nursing home. From what I can gather, she spends her time there alternately worrying about whether the city has consumed me utterly, and bragging to the nurses about how much money I make. She is justified in doing both.

MetraCorp devours multi-billion dollar companies like they're free samples at a grocery store. For it to consume me, Peter Drake, a mere crumb, was incidental. But that didn't dampen mom's pride when they swept me up, fresh out of college. They offered me a fat salary, benefits, and uncommonly posh corporate housing. They paid for the computing system of my dreams, and let me work from the apartment as an entry-level code monkey. With a sick mother to support, I would have been crazy to read between the lines. That was a year ago.

Now look at me. I'm practically pissing myself with fear. One finger-twitch is all that stands between me and a corpse. And Lucius is laughing.

"You were my friend, Lucius. How could you betray me?" I am speaking slowly, because I don't want to throw up.

"Friend? Oh, stop. You're making me blush. If it makes you feel any better, this is purely business."

"For MetraCorp?"

Lucius shakes his head. "For me."

Rewind one year. Lucius didn't live next door yet. I was happy with my new job at MetraCorp, and there was nowhere to go but up.

I set up my room like a compass. To the east was my bed, pushed up against the wall opposite the west-facing window, out of the light that would creep across the shiny floor with the setting sun. To the south was the bathroom, and against the wall to the north was the computer. The floor was usually littered with greasy pizza boxes and Styrofoam cups stained yellow with Ramen broth. Eat. Sleep. Code.

I spent 15 hours a day coding, so it made sense for me to have a computer that would make God jealous. A towering array of flat panel monitors arranged in front of a black leather chair. It was like looking out through the composite eyes of an insect. There were five screens in all, three on the bottom row, two on the top. It was 11.5 million pixels of high-definition LCD heaven. Each screen had a cable that snaked down to a massive black case.

The computer was a monolith. A monument to computational excess. Gigs of RAM. Terabytes of storage. RAID. Redundant power supplies. Trillions of floating point operations per second. All of this, when I could have done my job effectively on a Macintosh Classic.

One screen was devoted to news. CNN, stock tickers, local news, etc. One morning, about 3 months after I was hired, I woke up to see this screen showing pictures of the first twin tower in flames. I scrambled out of bed just in time to see a passenger jet strike the second tower and hear my phone ring. I swiveled in my chair and picked up the portable.

“Oh my God, Peter, honey, are you alright? Have you heard? It’s terrible,” my mother cried. I could tell she was ready to start weeping if I said no.

“Yeah, Mom, I just saw. I’m fine, don’t worry.” It was a silly question, really. I was on the west coast.

“I love you.”

“I love you too, Ma. How are you doing?” For some reason it was always hard for me to ask this question. I fought down the lump in my throat.

“Don’t you worry about me. The nurses are taking good care.”

“That’s good. I’m glad.”

“I’m pretty tired right now, though. I need a nap. Too much excitement.”

“Yeah, OK. Get some rest. Love you.”

“Bye, Peter.”

That night was the first time I had my recurring dream. I still have the dream, every now and then. In this dream I am flying an F-16. I am flying near a 747, and below us and above us is nothing but blue. I know, in the way that one knows these things in a dream, that the 747 has been hijacked. My radio makes a sound and tells me that we are heading towards a city. I can see the gray rectangles of the skyline etched on the horizon. The radio crackles. “You know what to do.”

In the dream, I am flying so close to this plane that I can see faces in the windows. Tiny faces in round-cornered frames. Some of the faces are children, and they are happy. They salute me and giggle. Their parents look at me like a savior, I am an eagle come to snatch them from danger. But there is one dark face, in the window furthest to the back, which I recognize but cannot name, for he seems somehow disfigured. He is frowning

and staring with uncanny precision into my eyes. Suddenly, I feel my heart grow cold, my hands sweat drops of mercury, and the man is speaking to me:

“I know what you have to do. You have to shoot us down.”

And that was the moment in the dream I always wake up. I sit up with a strangled yell. “Lights!” I shout, and the pallid overhead fluorescents light the room, and a torchiere lamp in the northeast corner, between my bed and computer, flares up with a sudden heat.

A few weeks after the dreams started, MetraCorp scored a huge military contract. The terms were kept under close guard. No one seemed to have a clue what service MetraCorp was offering the military. MetraCorp has its hands in everything, which meant it could have been anything. But when I was ordered to drop my current assignment and work on a new project, I had no doubt it was for the military contract.

“What are you talking about?” I ask Lucius. “What business do you have... killing me?”

“This is the Information Age!” Lucius briefly removed the gun from my face to wave his arms in a grandiose gesture. But he quickly swung it back to point at me. “And that’s exactly what I’m selling.”

“The project? Our secret?”

Lucius makes a disappointed sound. “Oooh. Almost.”

My mouth drops as understanding dawns. “You’re blackmailing MetraCorp?”

“Ding! Ding! We have a winner.”

“Are you crazy?” I say this to the man pressing a gun to my head. “You do realize that they’ll kill you? You’ll never get to tell the press anything.”

“Oh, but that’s the beauty of it: I already did. Sent a CD to every major TV station and newspaper. Everything’s there. Code. Wiring diagrams. Emails. Financial transactions. Enough to bury them.”

My heart beats faster. “What’s the catch?”

His pride is transparent. “I applied an extremely strong encryption. They see 650 MB of nonsense. Rather unlikely they’ll be able to read any of it...”

“...Unless you give them the key.”

There’s a design principle, central to programming, called abstraction. The idea is, you build black boxes that serve particular functions, and then put them together to make bigger black boxes, and so on until you have a complete system. It’s all about isolation of duty. Restricting information. Damage control. This is what MetraCorp gave me for my new project: a hundred pages of documentation outlining exactly what my black box should do. Not one of those pages made even a vague reference to how my box would be used. That’s the idea.

It was an encrypted communication system, my black box. Party A needed to send messages to Party B, but not the other way around. Most importantly, Party B needed to be *sure* that the messages it received were, in fact, from Party A and were neither changed nor read en route. That’s it.

There’s another concept in programming called a backdoor. You basically take a system with security and protocols that prevent unauthorized use, and then make it so *you*

can always get in if you want to: a backdoor. This is a bad idea. With MSG and caffeine saturating my synapses, I finished my project in less than a month, complete with backdoor, and submitted it. I had weaved my code into the fabric of MetraCorp.

With the time I spent on that project, you must understand my curiosity. Between other assignments, I snooped. Slowly, I wormed my way into files that were none of my business. I tried to determine the larger picture from my coworkers' black boxes. I hypothesized systems, pieced them together like a puzzle. Around that time, Lucius Kent moved next door, replacing a person who, it was rumored, had been fired under dubious circumstances.

"You must be my new neighbor. Peter, right?" He shook my hand. "I'm Lucius. Nice to meet you. You should come over some time. Have a beer."

I was grateful for the invitation, and I took him up on it. Lucius was fond of asking questions. I shared stories about my mother, mostly, because she was everything that wasn't MetraCorp.

Lucius was from Kansas. He liked to joke that he was from Smallville, home of the Kents in the Superman comics.

"So, how do you like Metropolis, then?" I asked him once, as we sat in my room.

"It makes me feel as though I don't know anything at all. But I wonder if it's better that way. There's so much I don't think I want to know."

I shook my head vigorously. "Ignorance is not bliss: it is peril."

I told him about my dream.

“I read a book about how to analyze dreams,” Lucius sat up on my bed, while I listened from my recliner. “One theory says to put yourself in the position of every person in the dream, and try to figure out what it means from that perspective.”

“It’s the guy in the back of the plane that bothers me most.”

“Me too.” Lucius grinned. “He the only person who knows what’s going on, and he’s the unhappiest of the lot.”

The next day I was called into the office. This only happens for two reasons: weekly meetings and firings. Today was not a meeting day.

“It seems we have a situation, Mr. Drake.” My boss sat across from me, leaning forward, the corner of the table pressing into the fabric of his grey suit. “It seems you have been somewhat... restless, lately.”

Oh no. Information Systems must have ratted me out. They must have found something. Evidence of my snooping.

“We at MetraCorp reward excellence, and in doing so we achieve it.” Point. “But we also punish misbehavior.” Counterpoint.

Just do it already, fire me, hang me out to dry. Why are you dragging this out?

“Your recent behavior, Mr. Drake, leads me to the conclusion that you have too much time on your hands.”

“Eh?”

“I see this as the sign of an unchallenged mind.”

“Er.”

“Congratulations, we are promoting you.”

Blank. I had nothing at all to say. Blood that had been pressing against the walls of my skull now flooded down to pool at my feet. I felt dizzy. Instead of a pink slip, I got the golden handshake.

“We are processing the paperwork now. I suspect you’ll find the new salary and benefits package more than generous.” He slid a folder toward me, and I looked at the numbers. He was right. It meant a private nurse for mom.

“What will I be doing?” For some reason, my first concern would be that I would have to come into the office on a regular basis. He refused to answer my question until I had signed a Nondisclosure Agreement. He said it was “just a formality.”

“The system you worked on recently, the cryptographic black box, was part of a much larger project. It was our military contract. The client wanted to create a system to combat terrorism on airlines. In particular, the military wanted to avoid the need to sortie fighter escorts to shoot down hijacked planes heading toward populated areas.” He said this so casually that I shivered. “It was bad publicity. Anyway, they wanted a way to eliminate the threat remotely and quietly. No jets, no missiles. Just an authorized message from the President and an encrypted packet sent to the detonation systems we have installed on planes. If we have enough warning, we can blow the plane up over water, farms, mountains. No debris raining on suburban neighborhoods. No urban disasters. The plane goes down, and there are no casualties on the ground.”

The blood then seemed to leave my feet, and my body, entirely. I was just a shell.

“The original idea was a system that would let us take control of the plane from the ground, you know, to land it safely. But there were all kinds of technical problems.

Plus the risk of misuse... Explosions, however, we can blame on the terrorists.” He said it so matter-of-factly. “Of course, you already knew all this.”

I had been staring at the table in front of me, but at this I looked up. They had made a mistake. They thought, in my casual snooping, that I had found their secrets. They promoted me because I hadn’t run to the press. I hadn’t been *repulsed*. How could I correct their mistake now? This isn’t the kind of secret they fire you for. This is why they invented hit men. People like me, refusing promotions like this.

“Your job, Mr. Drake, will be to look for flaws in the system. Ways to subvert it.”

“So once I certify the system as being safe, it will be deployed?” I thought, for one hopeful moment, that I might be able to prevent installation of the system by claiming it was insecure.

“Oh, no. The system’s already been installed on almost every passenger aircraft in the country. You just let us know if something isn’t working correctly, so we can fix it.”

When I got home, Lucius peered out from his room. He interpreted the look on my face as despair.

“Oh, man. What happened in there?”

“I got promoted.”

“That’s terr... What?”

I ignored him. He had heard me. I tossed myself down on my bed and stared up at the ceiling. Lucius took the swivel chair and rolled next to me.

“When is it OK to kill someone?” I asked.

“Jesus Christ, what the hell did they promote you to?”

“Just answer the question.”

“Fine. Um. I suppose if you are saving more lives than you are taking. Or if the person is really evil. Or for the right price.” Lucius winked. He waited for me to say something, then gave up. “Well, take Hiroshima. We wiped out an entire city of civilians. Why? To avoid an invasion that would have cost millions of lives.”

“We dropped two bombs.”

“Had to prove it wasn’t a fluke.”

I took a deep breath and let it out slowly. “We need to talk.”

“I got that impression, yeah.”

“I’m not even sure I should be talking to you about this. I signed an NDA.”

“Come on Peter, that’s just a precaution. That’s so they can sue your ass if the story shows up on the front page.”

“I don’t think this is the kind of thing they sue for.” I gave Lucius a dark look.

He leaned forward in my chair. “I can’t help you if you don’t tell me anything.”

I nodded my understanding, and proceeded to tell him about the project.

“Do you have any proof?” Lucius didn’t doubt me, but he wanted something tangible. “Are you going to do anything about it?”

“That’s what I’m trying to get now.”

“Good luck, man. Good night.” Lucius retired to his room.

MetraCorp granted me access to the project data as part of my promotion. I spent the night downloading information about the system. It was all encrypted using some software I had written for MetraCorp earlier that year.

Reading the specs was a formality. I *knew* there were flaws in the system. I had installed the backdoor myself.

The next morning, Lucius came over to my apartment.

“Morning slick,” he said, “thought I’d come over and see how things were going.”

“I got all the files on the project. They’re on my computer. Encrypted.”

“I see. So, why are you putting on your shoes?”

“I’m about to pay a visit to the newspaper.”

Lucius’s face drooped, as though strings holding up his skin had snapped. “Are you sure that’s a good idea? I don’t think MetraCorp’s gonna look too kindly on loose lips. You’ll lose your job, at least.”

“Lucius, it’s murder. They’ve set up a systematic method for killing planeloads of people. I can’t be a party in this. I can’t just watch it happen.”

“I was afraid you might say that.” Lucius reached behind his back. I gave him a curious look. A child-like look of interest, as though I expected a gift. He pulled out a gun. “I’m changing your plans.”

“No.” It was a reflexive objection. I was still responding to Lucius as a friend. I shook my head quickly, tossing aside notions of our friendship. “What are you doing?”

“You should have listened, Peter. I tried to warn you.”

“Please don’t do this.” I whimpered. I stood rigid, afraid to breathe.

“Sorry, Peter, I can’t have anyone finding out our little secret. Not yet...”

My hindsight, when it comes to Lucius, is not 20/20. It’s better than that. It’s X-ray fucking vision. All it took was a shiny 9 mm against my skull to open my eyes.

“You’re a double-crossing spy.”

“That’s why they pay you the big bucks. So perceptive.”

“You moved in when I started snooping. All those questions... And you tapped my lines. That’s how you got all the specs. You don’t have access, you just waited until I downloaded them.” I feel nauseous.

“Thanks, by the way.”

Suddenly, my promotion makes sense. “You told them about my dream. It wasn’t my snooping. They thought I already knew.”

Lucius seems genuinely amused. “You mean that really was a dream?”

I nod.

“Well Peter, it’s getting late.” Lucius pulls back the hammer on the gun. Hair trigger. “Sweet dreams.”

The phone rings. I look at Lucius with pleading eyes. “It could be my mother. Please. Just this.”

“Consider this your last request.”

I take a few steps and snatch the portable from its cradle. My life-line. “Hello?”

*“Hi. This is Mary Lane with the Los Angeles Times. I’m calling for Peter Drake.”*

The woman’s voice is high-pitched, squeaky. It is a beautiful sound.

“Hi mom. How are you?” I look at Lucius. If he realizes this is not my mother, I die. He cannot hear the woman’s shrill voice.

*“No, I said I’m a reporter.”*

“Yeah, mom. Everything’s fine. *Mom.*” Lucius gives me a funny look. I point at my ear to indicate that my mother is hard of hearing.

*“I don’t think you’re hearing me... Wait. Is someone there? Are you in trouble?”*

“Yes. *Yes*. I love you too, mom.” I want to kiss this reporter. God bless you, Mary. Lucius rolls his eyes.

“*Alright, I’m sending help.*” I hear some buttons being pressed, words being spoken. “*OK, the police are on the way. I’m gonna keep talking, alright? Look, someone sent our office a CD of encrypted data. We had some of our people look at it, and they said it was encoded using some MetraCorp software. Software that you wrote, Mr. Drake. We were hoping you might have some idea how to crack it.*”

I want to dance. My bad habit of installing backdoors seems like the smartest thing I’ve ever done. This encryption software has a backdoor. A master key. “Do you remember that poem you really like, mom? You used to recite it to me sometimes. Fire and Ice, by Robert Frost.”

“*That’s it? That’s the key?*” I hear clicking. She is probably searching for the text of the poem online. I hear a gasp. “*It worked! I can read the files. You’ve done a great job Peter. Help is on the way.*” Mary hangs up.

“Goodbye, mom.” I say softly and drop the phone back on the charger.

Lucius shakes his head. “That was touching. Really.”

“It’s over, Lucius.” I breathe faster and point to the phone. “That was a reporter. I told her how to decrypt the files you sent them. Our secret’s out.”

“Well now! Wasn’t that a foolish thing to do?” Lucius steps closer, his knuckles turning white as he grips the pistol.

There is a quick series of knocks on the door. “That’s the police Lucius. Put your gun down. It’s over.”

Lucius keeps the gun on me as he walks calmly to the door. He opens it.

A woman walks in. She is tall, in a black skirt, plaid socks, and a red sweater.

“Peter, this is my associate, Mary.”

“Hello, Peter,” says the woman in a high-pitched voice. The reporter’s voice.

My legs fail. I collapse on top of my knees and wobble there, my torso tilting back and forth in a fight to stay up. I stare up at Lucius as tears accumulate in my eyes.

“I must confess that I haven’t been entirely honest with you.” Lucius takes a step toward me, once again aiming his weapon at my head. “I did tap your lines, but MetraCorp never trusted me enough to let me read the data. I have all the encrypted information that you downloaded, but I needed the key.”

I am hyperventilating. The room is blurry through a lens of tears.

“I knew you would never give it to Lucius, your friend. Certainly not to Lucius, your captor. But you couldn’t resist the chance to tell a reporter. To let the secret out. To screw me!” Lucius kicks me in the stomach. I fall on my side and cough up blood.

My head is resting on the floor, but I can see Mary walk closer. “But now that we have the key,” she says in her piercing, awful voice, “we really are going to blackmail MetraCorp.”

“There’s just one more loose end to tie up.” Lucius frowns. Through the corner of my eye, I can see him fix me in his crosshairs. I am betrayed. Tricked. I think of my mother. Alone. Abandoned like my father abandoned us. I start to weep.

“Please!” I blubber. I imagine the bullet entering my skull. Splaying against the bone. Shredding my brain. Erasing my life and my dreams.

“Goodnight, Peter.” I am the man in the back of plane, watching Lucius control my fate. And I know precisely what he is going to do. I watch him pull the trigger.