

Individual Status Report I

EECS 582: Senior Design Project II

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This week we spent on working with our new shiny hardware, which is the Oymotion armband. We finally figured out how to onboard our new device and work with it, as in collecting the raw EMG data and setting up a proper development environment for it. Currently, it's working on Raspberry Pi, as the official SDK requires a valid bluetooth chip onboard with a linux installation. I'm working on a possible port of the SDK to Go, so it could be more portable and work reliably on different devices and operating systems.

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Individual Status Report II

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As mentioned last week, I am trying to work with the neural interface of Oymotion and have figured out the basic layout of the data that it produces. It generates four quaternions to describe the spatial movement of the armband, which are themselves directly correlated to the changes and state of the electric muscle signals. The big problem for me is getting through the specification document and to actually evaluate whether the whole rewrite approach is worth the engineering effort (even with all the benefits included).

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Individual Status Report III

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This has been a performant week for both me and my team. Firstly, we worked together on finalizing our Final Design Proposal and setting our deadlines straight for this semester. I spearheaded our team's logistics, internal communication, and planning for deliverables. Our team will be divided into two subteams: armband team and eyetracker team. We have two armbands and two eyetrackers, each team member will get one hardware piece and work on specific application with the other person in the team to build features. You can notice I'm the one without the team. I am working directly with both teams to support them in development (code reviews, issues, big picture) and I am working on the target GUI application that is outlined in our final proposal, which will combine and work with all the software that the subteams create. My plan next week is to continue code review of subteams' features and designing the final GUI application, such that it's fully compatible with what teams will deliver.

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Individual Status Report IV

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Nothing felt the same as it used to. I looked around the room, everything seems to be in place, but... this feeling. This feeling of uneasiness and doubts is sinking deeper and deeper into me. Stuff like this always happens for the wrong reasons, at the wrong times. I think to myself, why do I allow it to get to me?

I need to go and get a breath of fresh air, see friends, and live a little bit. There I go again, *living*. Am I not *living* right now? No matter, the more I go into it in this state of mind, the more I will get lost in this never ending stream of verbal bazaar. I haven't been to Taco Bell in a while, I wonder what it's like.

Weird, I don't like Mexican food, it overwhelms my tastebuds and my digestive system is just not friends with it. But I'm craving for it big time. Last time I was there, life was different, people around me were different. Not in a good or a bad way. Just different.

I walk down the street. I should probably call someone over in that phone booth. Who should I call? I don't know, all I do know is that I want to talk to someone. I walk into the booth, look right, and I freeze in terror. I see a dark figure approaching the booth. Not just walking in the same direction, but coming here.

The menacing figure grows larger, footsteps get louder, and finally, I hear it say "Yo Sandy, what are you doing here?". Ah, it's my friend Rodrigo. "I'm alright, what are you doing here?", I asked. There was no reply. "Listen,

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Sandy, don't forget to submit the individual report tonight", he told me after an awkward second pause, which he didn't seem to mind.

"Ah yes, thank you, I'll do that!", I replied hastily, not knowing where it came from or where it's gonna go. "Good, chao" is what I heard from Rodrigo as he quickly parted our impromptu rendezvous spot. My mind started writing the individual report, what did I do this week?

Well, I do keep everyone in the group on pace with our deadlines and sprints. Conducting code reviews is a big part of the job that I enjoy, so I reviewed the new features developed by the team this week and tested them out on different machines. Finally, I worked with Grant on forming our documentation foundation, where we would log tech details as a database.

"That should be enough", I said to myself quietly. Speaking of quiet, the phone hasn't been so quiet for a hot second. It's been ringing for a little while, I was deep in my thoughts. Shouldn't I have called someone? Why is someone calling this random booth? I pick up the phone.

"Don't imply your plan for next week..", the phone uttered and hung up immediately. Ah, I see. Next week I am planning to start designing the final consolidator for all of our armband/eyetracker features, and working with the team with accommodating all the functionality and libraries' APIs.

I left the phone booth, the mission was complete now. My hunger hasn't died down yet, why should it have? Now, where is that Taco Bell...

Individual Status Report V

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This week I didn't have a chance to write a story that I thought would be a worthy follow-up to the last week, so I'm keeping it simple.

This week I've been researching GUI libraries in Go that would allow me to start designing and implementing the unifying cross platform graphical interface, which would be able to run eyetracker and armband programs, even supplying their configurations. Some notable libraries I liked include go-astilelectron, go-flutter, and nuklear. The preliminary research showed that the best candidate for the job is flutter, as it would allow us to build cross platform apps that can look good visually and work on any screen sizes. My plan for the next week is to get more acquainted with Flutter's ecosystem by building example applications. Depending on how the experimenting progresses, the final design will be implemented to accomodate any chosen framework with the ability to bundle and load other executables.

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Individual Status Report VI

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Disclaimer: I'm okay and this is purely a work of fiction.

Today must be the day. How could it not? Tonight's the night. Look at the stars, marvel at their beauty. The breeze is so fresh as if it came flying straight from the Mediterranean lands. On a quiet night such as this, it is no secret that the leaves of nearby trees are all singing of God. The Universe itself is singing a lullaby, preparing its subordinates to fall asleep before the new tomorrow. Must be a shame that it will all end for me today. It must be today.

On my quick walk back home, I saw a girl running across the street. I couldn't tell why she was running, it was pretty late, she has to go to bed soon. Little bush noises I heard right before make me believe she was playing with a ball that flew in there, whilst of all, she was searching for it. Some people do have good genes, what a beautiful child. I'm sure her parents love her dearly. This must be my corner to get back home.

"Mister, mister!", I heard suddenly from behind. It was that same girl but tainted with a weird and scared look in her eyes. Am I really that detestable at first sight? "Mister, mister! Have you seen my mom?". Thank God. It wasn't me, she's just lost. How will I look for her mother? Where should I start? Is it all right for a man to hold hands with a girl? I am looking for her mother and trying to help her. I had to do none of that, as her mother appeared right around the corner, all worried, but at the sight of her daughter, I could feel the air of relief soothing her.

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"Thank you, mister!". That girl probably thinks it was all thanks to me. That I simply willed her mom into existence, or I should say to appear right in front of us. I wonder if she will remember this short encounter between us. No matter, she probably won't. I hope she has a good and long life in front of her. But what I do know is that I will. Eventually, this is my last day on Earth. This little, short, yet precious memory this girl gave me is what I will take with me. I should be thankful.

I'm home. It feels good to be home. The weather today was definitely something that I could never ask better of. I sat down at my desk, crawled my hand under a little napkin on the table. "It's still here, good", I said out loud. Why would it not be? The loaded revolver I've been keeping under this napkin for good two months now. Every day I try to finally push myself to do it. Finally, get enough courage in me to exclaim profoundly - "This is it! This is how I must go". But I never do. Last moment, before I pull the trigger, something holds me back. I question whether it is my cowardice or something that doesn't want to see me go.

I thought of this long and hard. Sometimes, I try not to think of it too much and take it more naturally. What is life? Why am I here? Does it matter what I do, what I feel? And what, if I'm learning how to use Flutter to create cross-platform GUI applications, who is going to need that? The designs I created for the application, with how all those pretty little tabs align and give the user the power to choose different configurations plus settings for different devices. Do they amount for anything? Is this really all there is to life? Doing one thing this week and planning me showing the designs to the team, and also getting a working dummy Flutter MVP working? The naive me hoped there is more.

Is today really the day? Thinking back, I see that girl in front of me. Wait, she smiled. Yes, yes! After she saw her mother, she looked at me with the most lively and hope-filled eyes I have ever seen, and she smiled. She smiled as I used to when I was a boy. This is life and the Universe telling me it is okay. There are better people in this world than me. Why should I be a hindrance to them, for that little girl? She will live life, there is no rational nor emotional need for anyone like me around people like her. They deserve to live because they yet possess that joy for life.

Thank you. I can finally go in peace now. If that little girl can hear me,

I wish you live a happy life. Doing what you feel doing, loving sincerely, supporting your mother, and being friends with yourself. Your little smile proved to me that it will be okay. I thought the Universe and reality would go when I go. But today I saw, it must go on, but without me. I can leave them to a better-off world with hope. They will never read GTK documentation pages, learn the C++ boost library, or learn how to convert cartesian coordinates for IMU data interpretation. It is going to be a life of hope for them that I could never afford, me, who already lost the taste before ever feeling it.

I made up my mind. The resolve is what matters. Thank you for your smile. You gave me life and courage. The life of what comes after me and the courage to make that life happen for all of you. I slowly get the napkin out of the table's way. I see the beautiful metalwork of the revolver. The soft candlelight is reflecting beautifully. What a sight to behold. Shakespeare said - "Courage isn't the absence of fear, but acting in spite of it". I'm scared, but her smile gives me enough will to finally act. All I need to pull that trigger....

Individual Status Report VII

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Come to think of it, it's been a while since we talked. All the way from high school. Am I to blame for it or just the circumstances of the time? My family always lived in the area temporarily, we knew that I will have to go wherever my family does. It's not like we haven't tried to keep in touch and call each other whenever I was in the area, but... The feeling was different. We were best friends in school, everyday talking for hours and no end. I left for university and he got drafted into the army.

I visited in, we called each other. However, with each one of my visits and our long-anticipated calls, that is when he gets access to a cellular phone or a little time away from the training camp, we would even go and meet together somewhere in the city! Walk around, talk about the past, how cool everything was and about the stuff we used to do together. But I notice now, we never talked about the present or the future.

His demeanor changed, not in a good way and in no way in a bad one. He became more reserved. He would always maintain a composure, as in he would be called by his drill sergeant any moment. He would *even told me* not talk too loud in a cafe we were sitting at. It was him, my best friend, my only friend I had for years, but at the same time, a man that I don't know, whose conversations I can't relate to, as if we are from different planets now.

'Oh, Sergey! Finally you came in. I'm sorry I kept you waiting outside like this', a medium-loud but cheerful voice called for me from the house.

'Good afternoon, Mrs. Keller! Please, there is nothing to be sorry for. I came in just recently. I want to express my sincere condolences to you and

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your family. I couldn't believe. I'm sorry I couldn't come any sooner, I had to...', my thoughts were running way past my articulative skills.

'Sergey, he would have been glad that you visited us. Please, come in', she said in a caring, motherly tone that briefly has overcome with deep sorrow.

While I was studying, I got the news from a mutual friend of ours. In the worst places of all. On LinkedIn. I rarely ever open that toxic professionalism website. I got a message from an old classmate that we haven't spoken ever since our high school graduation ceremony. It started with condolences, which alarmed and puzzled me in the moment.

It continued on to read that she expresses her regrets that we haven't spoken in a while. That he was what is called KIA or Killed In Action during the war. I initially didn't know who she was talking about. She wrote his name there, but I feel my mind didn't want to see his name so close to that military statement. She said he died a hero, living a soldier's life.

He never wanted to be a soldier. He was the smartest guy in our class. The only one I felt like someone could understand me, a funny, quirky, and odd foreigner. We were applying to the same universities, he got into some, but couldn't pursue further studies and college because of his military duty to the country. He never even worked out or went to the gym.

We would laugh and play, talk about latest cool things, like Flutter, which made GUIs super easy, that you could even use it with different languages with their bindings. I was learning Go at the time, which made me obsessed with all the libraries it had to offer. I told him I will be a manager, managing people, and making lots of money, while simply delegating everything else to my team.

He'd tell me that there is more to leadership than just delegating. It is about knowing your team's strengths and weaknesses. Your own as well. It is having a constant channel of communication between everyone and that the manager is largely responsible for the spirit of the group. He was the one, who made me want to have more friends. To look a week ahead and plan new exciting things to do, like a manager would work with his team on keeping up with deadlines and making sure everyone is comfortable in their spot.

He never wanted to be drafted. He never wanted to be a soldier. He never

wanted to die as a hero for his country. He was just a skinny, smart, and talented guy, who I always felt was meant for something bigger. Something that can be shared and treasured between both of us. What happened to him? What happened to me? What happened to us?

To be continued...

Individual Status Report VIII

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‘Sergey, dear, how was your flight in? How is your family?’ her sweet motherly tone only softened over the years since I’ve last seen them.

‘The flight in was good, no turbulence, and clear skies. The family is doing good. I must say they tell me how they miss living here. Especially the food!’ I tried to be a little cheerful, but not too much. Did I overdo it?

‘Ah, I’m glad your family is safe. Gregory and I are very happy to see you. He would often talk about what you did together in school and how close you were,’ I could still hear the grief in her voice when she mentions him, but it’s not the the grief you would sense from a mother who just lost her son.

It has some kind of acceptance, I would even dare to say closure. It’s already been a month. Is that really enough time to come at peace with it?

‘Ah, those were the times... We were still young and all we cared about is doing that English homework. We had to read so much, I remember how much he loved the books our teacher chose for us that semester,’ and he really did.

He was the best student in our small class. There were only five– no, four of us. One guy got kicked out of school for flipping off our principal. I would always take the easy way out, read the first five pages and the last ones. The rest? ahh, I’ll fill it in from what I’ve read and ask him to give me a run down.

‘He was always so excited after coming back from school to tell us how his day went... Ah! Where are my manners? Sergey, can I bring you some

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tea?,' she rushingly stood up as she was getting ready to start a marathon all the way to the kitchen couple of feet away.

'If that's okay, could I get some black tea?' It would be rude of me to decline it, especially since she is en-route to start the kettle.

'Of course, Gregory! Talk to our guest a little bit, I'll be right back. I want to get those cookies Marta brought the other day, you know, the fig and strawberry ones,' she said hurriedly.

'Those do sound delicious. Thank you, Mrs. Keller!'

'Oh, come on, Sergey, just call me Anna,' I couldn't recognize whether she said it seriously or jokingly. She looked a little distressed. Is this all because of me mentioning him? Is it really okay for me to be here? I don't want to open any wounds that are already trying to heal. I don't know, it's been such a long ti—

'Sergey,' I heard a man's voice to my left. So full of sorrow and pain, it was unmistakable. If she is trying to stay hopeful and struggling, I can't imagine what her husband must be going through. How do I talk to him? Do I talk to him like a man to man? Probably not, too much of an age gap. Do I talk to him like his late son's best friend? But I was not that friend.

'Sergey, thank you. As a father, who is still grieving his first son, I want to thank you for being his friend. He always looked up to you. He was never meant to be a soldier, thanks to your support, he was able to go through it. Even if my boy never wanted to be there, he wanted to meet with his old friends. Forgive him if he became more reserved, that's just what the army does to a young boy. Curse this war. Sergey, please go see him. He would like that.'

'I will, Mr. Keller,' what else could I say? Did I say enough? Was my response proper? What do you say in a situation like this?

'Sugar or no sugar, Sergey?' a loud voice was coming from the kitchen accompanied by a familiar whistling kettle.

'No sugar, please! Thank you!' I hope she heard me.

Mr. Keller shifted the topic of our conversation. He always seemed more of a stoic man from what I've heard about him, 'Is work good?'

'Work is good, there is this big project I've been working on for a client for the past couple of months. Looks like we are getting close to finishing it sometime soon.'

'That's good. Work is good. Your parents must be proud of you. Don't

forget about family! That's important too,' he said caringly as if he was talking to his son like a father, who really wants to see his grandkids one day.

'Of course, thank you. I hope your work is going well,' I said trying to sound like an adult. If I remember correctly, he worked as a lawyer in some international organization... amnesty?

'Thank you for asking. I took a sabbatical, so I could spend more time with Anna and her side of the family-' he was saying as he got interrupted by an approaching voice

'I got the tea and sweet for us!'

'It looks amazing, Mrs. Kell- Anna!'

'Now you get the hang of it!'

The rest of my visit to their house was pretty brief, we chatted, had some tea, enjoyed delicious snacks and sweets their Marta brought over. It feels as if the atmosphere in the house changed a little. They asked me about my travels, some anecdotes and jokes were shared over the table. It feels they just wanted to see me, an old friend of their beloved son.

I thanked both of them as I was leaving. It's getting pretty late. Better start heading home.

That was better than I expected. What did I actually expect? Wailing while we all hold each other's hands? Probably not, I expected it to be something as exchanging grievances and collecting our memories about him.

But no, I saw how grief-stricken they were, but they just simply didn't want to show it in front of me. Out of solidarity? Out of pride? No, they just understand that life must go on.

Did they know that we were out of touch for such a long time? I would assume so, but is it true that he still talked about our time such a long time ago? Did he not have any other friends? Should I have talked to him more?

What am I even thinking?! Don't speak ill of the dead, Sergey.

The answers to those questions don't matter anymore. It's just too late to ponder about this. The living must keep on living, and the dead should be given peace. I will never be able to find answers to those questions or what he actually thought of us throughout all the years.

I know this and always will. He was a great man. He was a great friend. I missed him ever since. I still do. The time is irreversible. I hope I was a good friend to you as much as you were to me. Goodbye, Dmitri. Thank you.