



Swetha Lakshminarayanan

About me

I am a **Mixed-signal IC Design Engineer** with three years of industry experience, currently working at **MintNeuro**, with a passion for designing electronics for neural interfaces.

My inspiration

I chose to pursue a career in electronics because **I love seeing how theory comes to life in the real world**. Studying electronics showed me how abstract mathematical and electrical concepts can be used to develop real devices that improve people's lives. I was drawn to integrated circuit design because it combines problem-solving with the challenge of optimizing designs under real-world constraints.

Fascinating tech

One technological development I find fascinating is the progress in neural interfaces over the past 15 years. Advancements in low-power mixed-signal ICs now make it possible to build devices that can both record neural activity and deliver targeted stimulation in real time. These technologies are being used in brain-computer interfaces and neurostimulation therapies, making long-term, implantable solutions more practical and effective. Seeing how **careful circuit design directly enables these life-changing systems has been especially inspiring** to me.



My strengths

My strengths include *analytical thinking and problem-solving, especially in mixed-signal circuit design. I enjoy understanding complex systems and breaking problems into manageable pieces.*

I'm curious, detail-oriented, and persistent, which helps when I'm trying to understand or debug a design. I also value collaboration and clear communication, and enjoy learning from people with different experiences and perspectives.

What excites me about the future

What excites me most about the future of semiconductors is their **growing role in healthcare, sustainability, and human-centred technology**.

By leveraging technologies already available in smartphones and computers to power biomedical devices such as neural interfaces, meaningful advancements can be made to improve people's quality of life. I'm excited about the potential of electronics in biomedical applications and being part of this evolution.

My aspirations

My aspiration is to continue growing as a mixed-signal IC designer by working on technically challenging projects with real-world impact. In the long term, **I would like to contribute significantly to innovative technologies in healthcare**, continue developing my technical knowledge, and support and mentor others entering the field.



My advice to someone who wants to start an EEE or related degree would be to take it one step at a time and not be too hard on yourself if things feel difficult at first. It is challenging but highly rewarding. Stay curious, get hands-on where you can, and don't be afraid to ask questions!