

# WHAT CAN I DO WITH A B.Sc. IN PHYSICS?

BY JOSH LAROCHE



These are words I admittedly searched on Google during my first years in the Concordia undergraduate physics program. For me, getting a degree in physics was nothing like the experiences my friends had in the engineering, computer science or accounting programs, where you end up working in a pre-defined sector. There is no clear path set out in front of you, no special “job” awaiting you on the other side of that diploma and hand-shake, and if you ask around it seems nobody has a really firm answer for what physics students should look forward to upon graduation. I’ll never forget this one response in particular “*A bachelor’s in physics is fantastic... as long as you pair it with something else...*” – Wait, what?! Let me explain. . .

Now, that’s not to say you need a second degree or to immediately go for a Master’s or PhD in order to be employable, like I assumed it would as I began my third-year course load – well beyond the point of no return. I can now say, as I look back on the past three years of my career after graduating, that I finally understand what it really means. You see, physics degrees have a uniquely intrinsic value not common among other degrees, and how that value comes to fruition is all in how you “spin” it. So many school programs are focused on “*teaching kids what they need to know to get jobs*” while I feel the physics program taught me about solving the world’s most complex and abstract problems and finding creative solutions, managing high workloads and learning to work in a team to solve really difficult problems. These are real skills which have been of direct benefit to me. Physics is a naturally inquisitive subject, where we are constantly asking questions about our surroundings, and just like the path to scientific discovery, we are always trying to leverage what is currently known to gain something further.

During my time at Concordia I had many side projects, and for me, music and physics have always been a passion; I played guitar in a band for many years, we played all the local clubs and toured across the country to the West Coast in 2009. I was also running a small

concert promotions company booking a few shows a month to make some cash, along with working night-shift at a security job on the weekends and grading papers and assisting in research at the Concordia Physics Lab during the week. (They have a great co-op program and some very kind professors doing some very interesting research.)

When I graduated, I incorporated my concert promo business and made the transition from a local concert promoter to a booking agency, signed a couple of international DJ’s and artists and started setting up shows and tours all across the country, operating under the name of SkyRocket Entertainment Agency<sup>[1]</sup> which today, 4 years later, is now merging with the Internationally renowned Convoy Artist Agency<sup>[2]</sup>. I’ve always been very passionate about working with my hands too – which is why I thought the Physics Labs were such a valuable experience; while in school I imported a right-hand drive 1992 Nissan Skyline GTR from Japan and over the course of a few years became a self-taught mechanic, totally rebuilding the car from the ground up, replacing vital engine components, upgrading the turbo-chargers and tuning the ECU for the car on a dynamometer to over 400 horse power. In doing so I documented every step along the way and posted this information on a purpose-built website community that I started<sup>[3]</sup>. Today this website sees more than 20,000 visitors a month and features contributions from some of the world’s most specialized engine builders and world record holders.

It was my education in physics and science, combined with my real world experience as a mechanic, which landed me my first “real” job in the work force as a technical documentation writer at a pharmaceutical automation packaging company. I was writing user manuals for safe operation of robotic equipment, and while this wasn’t the dream job I had in mind, it helped me get some experience that I could leverage to find my next job.

It didn’t take more than 6 months after I started the technical writing job before I was interviewing for some analyst positions in finance and web-related companies. I got my foot in the door at an IT firm that employs just over 1,000 people and was offering a competitive starting salary with room to grow as a web analyst. They found it valuable that I had experience running my own websites, and since I was coming from a physics background I was

## SUMMARY

**A recent graduate in physics relates his experiences in developing a career.**

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more than familiar with Excel and analyzing data sets. While working as a web analyst I took some evening classes in accounting and have since been promoted to business analyst, I now work daily with Business Intelligence data cubes to examine financial trends in sales data and provide predictions, growth models, ROI analysis, and monthly presentations to explain the results to the VPs and directors.

The lesson in all of this is that employers aren't out there looking for physicists to offer jobs to; on the contrary, most job postings mention other degrees, years of experience and soft skills. That's why it's our responsibility (as physicists) to find something that interests us and to enlighten the world as to why someone with a physics degree is going to be able to do that same job, but better. We have an edge on the competition and it goes beyond just having the required skill set.

Physics is a field where you are essentially learning how to learn; the thought processes and problem solving skills developed while studying are a gift that will benefit you for the rest of your career and life in ways you can't even imagine right now. No matter which job or task you take on, the strengths of your education in physics will shine through; from programming and finance, banking and insurance, business, pharmacy, labs, construction, music and the arts, everything is accessible from a physics student's perspective and completing that degree is like planting a seed, and you continue to plant seeds as you expand your knowledge and try to learn as many new things as possible. As time goes on, those seeds grow and blossom into opportunities.

So to answer the question posed in the title of this article: Well, if you spin it right, you can do anything you want to do.

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## REFERENCES

1. SkyRocket Entertainment Agency, [www.flyskyrocket.com](http://www.flyskyrocket.com).
2. Convoy Artist Agency, [www.convoyagency.com](http://www.convoyagency.com).
3. [www.skylife4ever.com](http://www.skylife4ever.com).