# Statement of Purpose

Who am I

Hey there, I’m Sid and I am applying to your PhD program in Computer Science.

After two years doing research and then almost two years in industry I can’t imagine doing anything other than joining a doctoral program.

Every day that I worked in industry I could feel in heart the need to be doing research and work with my personal passion field: Natural Language Processing.

So what did I do?

I worked to make my engineer role into a research role by showing my team the value of having R&D as well as exploration built into our day to day work.

What do I do

Today I work as a Senior Data Engineer at Capital One working on a Machine Learning team that credit limit decisions based on credit card statements.

At first our team was using a vendor optical character recognition product that would read PDFs for us and give us shoddy transcripts in text.

I pushed the team to research new options to make our process more accurate and more efficient by implementing our own pipeline.

The next step was researching and implementing a Google-written open-source OCR platform to give us better character recognition.

Now that I had given the team an appetite for research I pushed the team further by proposing we write our own OCR engine.

I immediately became the point person to implement that solution.

And when that was done?

I had already set the dynamic, I began doing research for our team to start using Natural Language Processing techniques to intelligently extract information from our newly transcribed documents.

I took a team that was primarily engaged in minute improvements and devops improvements and turned it into a research lab.

Our team now works faster than ever, has more impressive results to show for our work and is re-energized to work harder than it ever has.

What do I do part 2

That wasn’t enough for me though

I still needed more research to do and that lead me to Monitaur part-time.

I was hired into Monitaur directly as their first Research Data Scientist after meeting with their CTO and impressing upon him my drive to work hard and push their machine learning work through constant investigation of new technologies.

With this group I have near full autonomy to set up coding standards, clean code to make it more efficient, and most importantly to work on any project that I feel will add value.

When I do work towards the Monitaur platform it doesn’t even feel like work and I barely notice time slip by as I work for hours straight on my own projects.

The last time I felt the way I do when I work as a Research Data Scientist is when I remember working as a research assistant in undergrad, but we’ll get there in a moment.

Research experience

Since high school I had wanted to work with Machine Learning and Natural Language Processing so when I joined Stony Brook University I was raring to go.

After two years of being in the machine learning club and diligently working through my course load I felt dissatisfied with how much I had learned.

So at the end of my sophomore year at Stony Brook University I decided that the best way for me to learn about Machine Learning was to join a research team.

I emailed out to all the professors in my department who were looking for research assistants and ultimately met with Dr. Ritwik Banerjee.

Little did I know at the time that we would be close research partners for two years and now close friends.

During our time together we worked on two year-long projects as a two person research team.

Never before had I been pushed so hard to work independently and drive my own pace.

Background and undergraduate coursework, as well as accolades and awards.

SBU in Computer Science with a heavy focus on Psychology coursework.

Of nearly 300 members in the Computer Science major only 25 were selected to join the Honors CS program.

At graduation time fewer than 10 students successfully completed the Honors CS program and presented their Honors thesis.

The honors thesis I proudly presented was the second year-long research project I conducted with Professor Banerjee.

Why am I the right candidate for THIS program?

After learning about Professor [] of the [NLP group]’s research on [] I was resolved to apply to [University]. [Reference to a paper they have written]. I would want to see if this research could be expanded by [suggestion or improvement].

What do I want to do in the future? Give your 5 year plan.

Do research full-time, pushing against what we currently know about Machine Learning and Natural Language Processing.

Then using that knowledge to create meaningfully different outcomes in people's lives through the use of Machine Learning for Good and AI Safety.

I want to see the new age of NLP that makes people's lives better and more informed instead of powerless and disinformed.

Send off

I love doing research honestly and truly, and I will feel horribly unfulfilled if I can’t do more.

I really care about the field and often read papers and press materials for what is going on in NLP.

After doing research with Professor Banerjee I felt a genuine urge to do research all the time when I woke up, late at night, ten minutes before our research meetings, or any chance I could get.

I still have so much to learn and so much more I need to do and I would be honored to do it at your university.

**Looking for 500-750 words (ctrl + shift + c)**Resource:

* <https://www.cs.umd.edu/grad/writing-statement-of-pupose>
* <https://www.quora.com/How-should-a-statement-of-purpose-for-Masters-in-Data-science-be>