**If you are applying to the Trinity College of Arts and Sciences as a first year applicant, please discuss why you consider Duke a good match for you. Is there something particular about Duke that attracts you?**

* The important sense to do social good
* Mxing computer sicnce
* Entrpereneurship

# Rev. 1

My interest in computer science go beyond the merely academical work. I’ve always been interested in mixing it with knowledge from other areas, such as biology and economics, so that one I create solutions that generate a real life impact. I’m excited because Duke has a similar outlook on computer science than I do, since one can study the major with emphasis con biology, for example, and the faculty is highly interconnected to other fields.

It’s also very important for me to be able to translate solutions to the real world and implement them. I think the concept of entrepreneurship is crucial for being able to carry out this task, so the I&E Certificate and Duke in Silicon Valley interested me very much.

Something in particular that attracted me of Duke was the importance they give to the social impact of one’s developments. I first found this out while looking at the artificial intelligence section of the CS department. I was surprised by the “AI for social good” and “Computational social choice”, they turned out to be a mix of exactly the two things I want to do, drive forward technological development, and contribute in a meaningful way to society’s development.

Another course that follows this trend and that I found interesting was the I&E course “Special Topics: Mission Driven Startup”. One gets the chance to use everything they have learned, and apply it to solving pressing nation-wide problems.

# Rev. 2

* COMPSCI 102 Interdisciplinary Computing
  + COMPSCI 102 is a version of COMPSCI 101 that explores the concepts from 101 in the context of natural science, social science, engineering and the humanities. There is a required lab associated with COMPSCI 102.
  + Course Description: Introduction to the practices and principles of computer science and programming and their impact on and potential to change the world motivated by problems drawn from natural science, social science, engineering, and humanities. Programming using Python, appropriate libraries, and APIs to process, analyze and visualize data. Design, implementation, and analysis emphasizing abstraction, encapsulation, and problem decomposition.
* Computation + X
* Duke NUS Computational Biology Research center
* One Duke a day video
* Duke at Silicon Valley

Years ago, while preparing for the Informatics Olympiads, I came across an article on the application of a text manipulation algorithm for analyzing DNA sequences of individuals from different species. I was fascinated by the application of this method across disciplines and challenged myself to do the same with the algorithms I was learning.

Since that day, through the development of various projects, such as a chemical equation balancer and a patient management software, I developed a passion for biochemistry and medicine. Columbia’s Computer Science Department program in Computational Biology presents an incredible opportunity to mix my two passions, CS and biochemistry. I want to work alongside the likes of Itsik Pe'er, whose research on how changes to DNA sequencing affect biological processes I am very interested in.

Moreover, I am excited at the idea of meeting faculty and students through the Center for Computational Biology and Bioinformatics and the other health-oriented departments. With everything I learn from these opportunities I want to start a company that generates a positive social impact. Columbia can provide me with the tools necessary to achieve this through its robust entrepreneurship program.

One of the examples of this support that fascinated me was that of Droice, the Columbia born drug analysis company that went from idea to production in twelve months through the participation in the Columbia Venture Competition, of which I hope to compete in.

An aspect of Duke I believe is really important is that it allows CS majors and non CS majors to take some CS courses together, which bring diverse perspectives to the table, fomenting a richer understanding of the subject. This is also helped by classes such as Interdisciplinary Computing which will be a great opportunity for me to learn how theoretical concepts can be applied to the real world, with concrete examples from the natural sciences to the humanities.

The opportunity to conduct independent interdisciplinary research, under the guidance of professors who are themselves researching Data Science as part of Computation+X or AI, will be fundamental for me to understand how technology can be applied to the industries I0m

Large amount of data needs to be processed, and even more will need to be in the future. The opportunity to conduct independent research, under the guidance of professors who are themselves researching data analysis as part of Computation+X or the Data Science research, will be fundamental for me to understand how this technology can be applied to the industries I’m interested in, such as healthcare and finance.

I wish to use these and other developments to start a company that generates a positive social impact. Duke will provide me with

Columbia will provide me the tools necessary for me to achieve this as part of the entrepreneurship program. One of the examples that fascinated me was that of Droice, the Columbia born drug analysis company that went from idea to production in twelve months through the participation in the Columbia Venture Competition.

# Rev. 3 (con sugerencias de T)

Two years ago, while preparing for the Informatics Olympiads, I came across an article about the application of a text manipulation algorithm for analyzing DNA sequences of individuals from different species. I was fascinated by the application of this method across disciplines and challenged myself to do the same with the algorithms I was learning.

In the past few years I have created several programs, but its was through the development of a navigation app for the blind community and a health reimbursement platform for people with disabilities that I developed a passion for applying computer science to health for the benefit of society.

Duke’s Structural Biology & Biophysics Program offers and incredible opportunity to mix my two passions, CS and biochemistry. I want to work alongside the likes of Bruce Donald, who is researching algorithms for building and simulating proteins.

Moreover, I am excited by the opportunity to conduct independent research hosted by Duke Center for Genomic and Computational Biology. I have genetic acute scoliosis, and was interested in developing prediction algorithms for the condition so that the onset could be prevented.

With everything I learn from these opportunities I want to become an entrepreneur working on socially-minded tech. Duke can provide me with the tools necessary to achieve this through its Innovation & Entrepreneurship program. I am encouraged in this by stories like that of Transcriptic, a Duke-born biological analysis company that raised funds after participating in Duke’s Startup Challenge.

# Rev. 4

**If you are applying to the Trinity College of Arts and Sciences as a first year applicant, please discuss why you consider Duke a good match for you. Is there something particular about Duke that attracts you?**

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Duke’s Structural Biology & Biophysics Program offers an incredible opportunity to mix my two passions, CS and biochemistry. I also want to conduct independent research hosted by Duke Center for Genomic and Computational Biology. I have genetic acute scoliosis, and was interested in developing prediction algorithms for the condition so that the onset could be prevented.

I have grown a great deal from being on a specialized track and with a cohort in my highschool and I look forward to a tight-knit environment within which to form meaningful relationships with students in all areas of study. Another aspect I am looking forward to is the close relationships with faculty that Duke encourages. I have benefited enormously from the mentorship of my teachers in the past and hope to engage with professors at Duke in similar ways. For example, with Bruce Donald, who is researching algorithms for building and simulating proteins.

With everything I learn at Duke I want to become an entrepreneur working on socially-minded tech. Duke can provide me with the tools necessary to achieve this through its Innovation & Entrepreneurship program. I am encouraged in this by stories like that of Transcriptic, a Duke-born biological analysis company that raised funds after participating in Duke’s Startup Challenge.