Bioinformatician

**Industry Demand of Bioinformatician**

* Data is one of the most important resources in the digital world and data about life (genomes, conservation data etc) is especially important. As more and more diseases with genetic predispositions are being researched on, data on human genetics is being studied extensively. There are still lots of diseases that we do not know about like Alzheimers and Bioinformaticians may help investigate that.
* A lot of pharmaceutical companies need bioinformatics specialists in order to help design and manufacture drugs that are tailored to individuals.
* Bioinformatician are also increasingly needed to help support wildlife biologists and environmental scientists where they will help out collecting, analyzing and interpreting population data to help with conserving endangered species.

**Salary (Range)**

* Entry Level Salary in the United States: $ 40,000/Year
* Mid Career Salary in the United States: $62,000/Year
* Average Salary in Indonesia: Rp 267.000.000,00/Year

**Core Tasks**

* Creating and updating data algorithms and specialized computer programs to identify and classify complex biological data like DNA and protein sequences.
* Provide training and information to other scientists and researchers on interpreting biological data.
* Collaborate with fellow scientists on research and publications

**Working Conditions**

* Would work most of the time in either a lab or office working on a project. Most projects would be done through a computer.
* Consulting and collaborating with other bioinformaticians, engineers, technicians, and software developers on large scale interdisciplinary projects.
* More senior bioinformaticians would take on a more administrative and management role.

**Skills Required**

* RStudio
* Problem Solving
* Making Research Paper

**Career progression data**

* Pathways :
  + Earn a bachelor degree in Biology/Statistics/Computer Science
  + Earn a masters degree in Biology/Statistics/Computer Science
  + Can be promoted further to Senior Bioinformatics Specialist
  + Working in wildlife conservation would most likely work either in a university or non-profit organizations.
* It may be hard to find an entry level Bioinformatics job with just a bachelor’s degree so a master’s degree might make finding jobs easier

**Possible University Major**

* Biology
  + Would need to take statistics and computer science courses
* Statistics
  + Would need to take Biology Courses
* Computer Science
  + Would need to take Biology Courses

**School subjects required**

* Biology
* Maths
* Chemistry