

Processamento de imagens médicas

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Engenheira de Machine Learning - Google

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Professora na Pós Graduação - Universidade Estácio de Sá

CIAware - Full Stack

Pós-Doutorado - Psicobiologia e Computação Aplicada - USP/RP

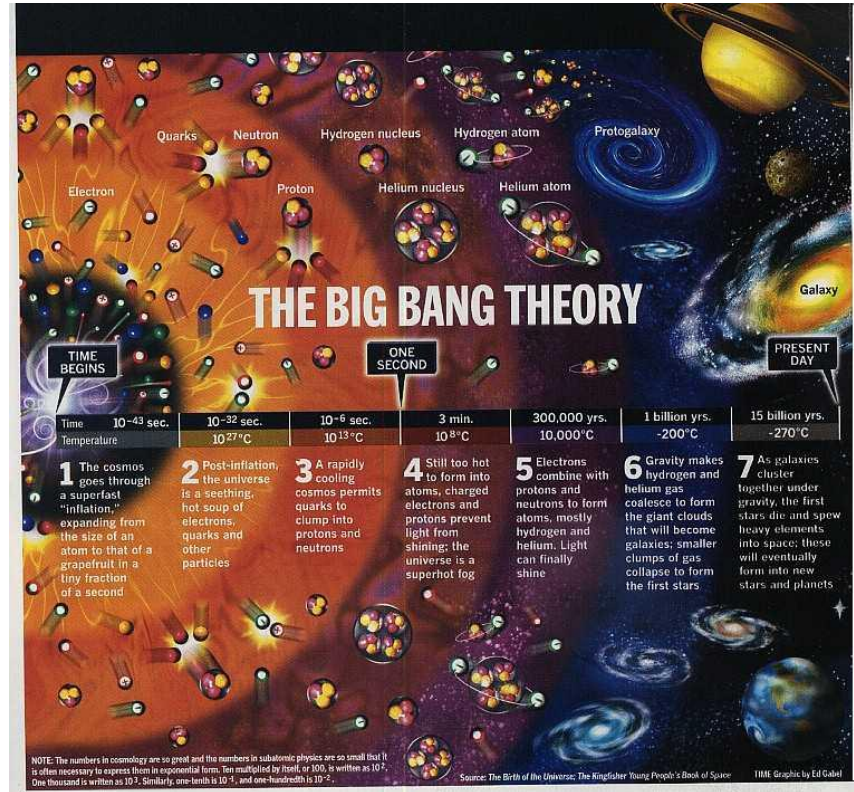
PhD em Biofísica - USP/RP

Informática Biomédica - USP/RP

Fonoaudiologia - USP/RP

Aquisição de imagens - Ressonância Magnética

Problema Inverso



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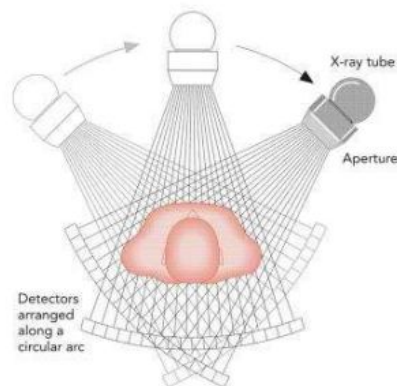
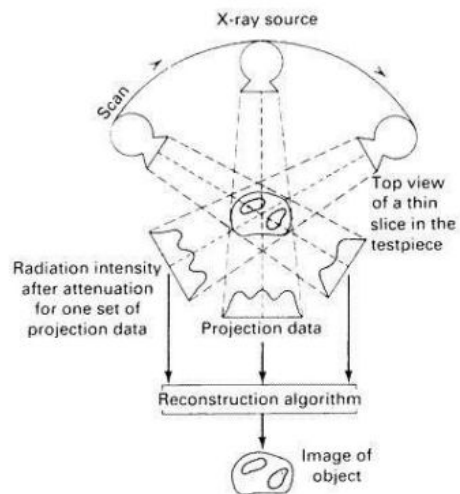
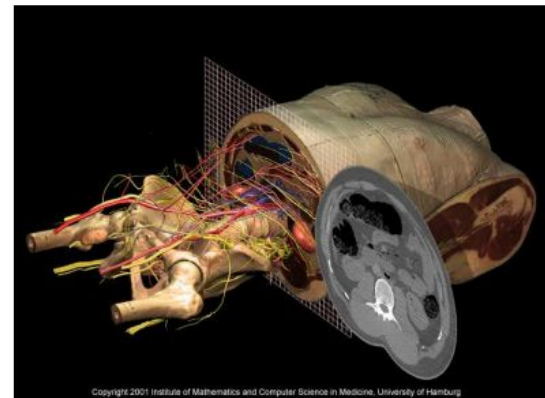


Figure 7-10 Computer tomography



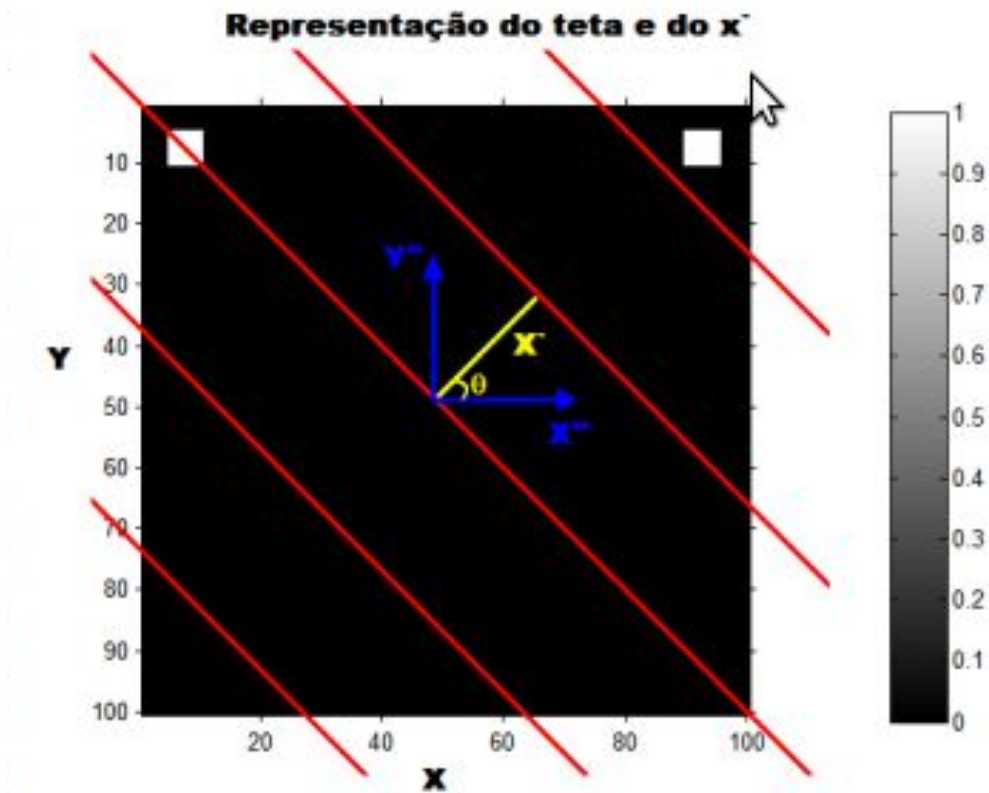
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Figura 1.1: Tomografia Computadorizada.

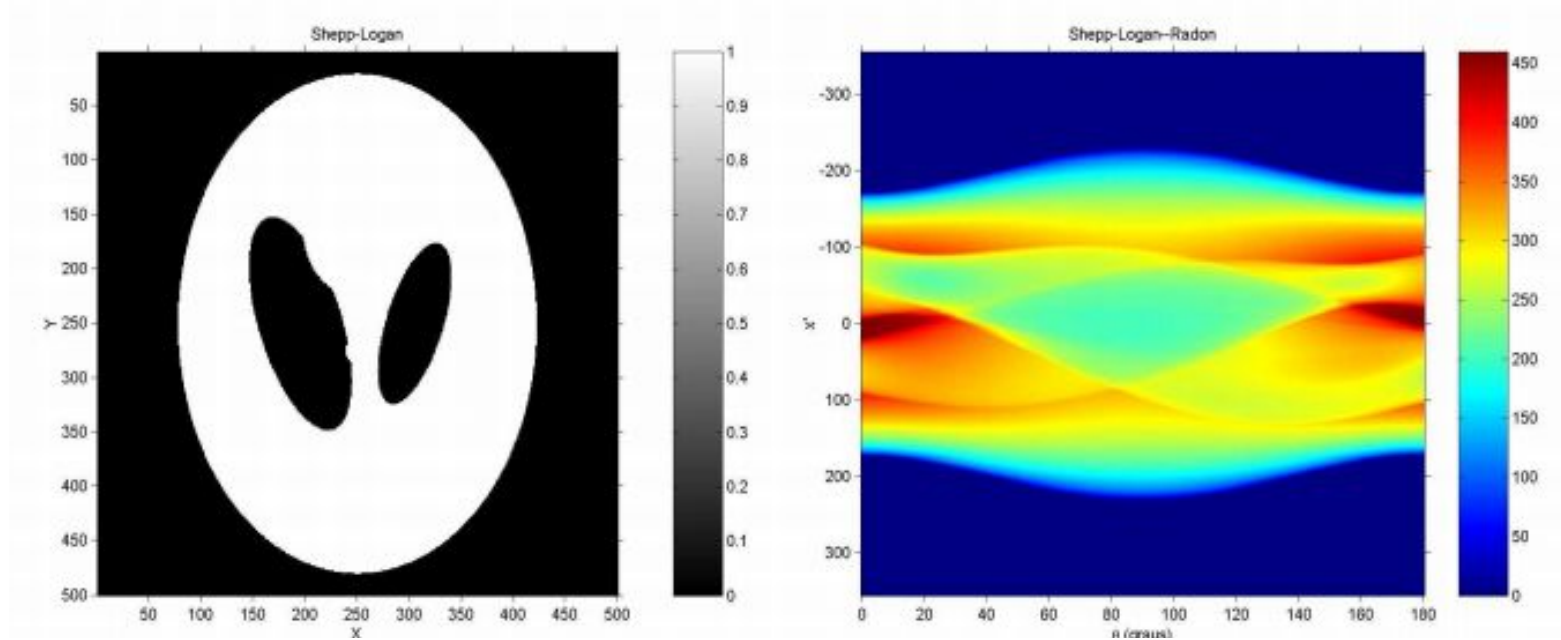
Figura 1.2: Tomografia Computadorizada do corpo humano.

Figura 1.3: Seção Transversal.

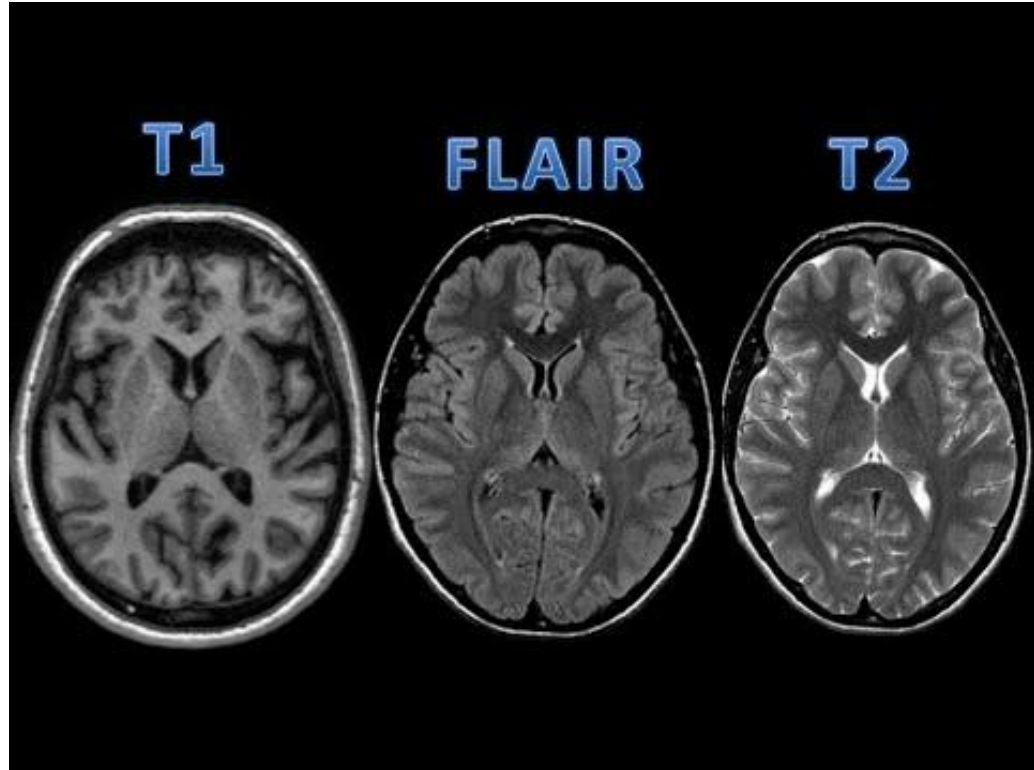
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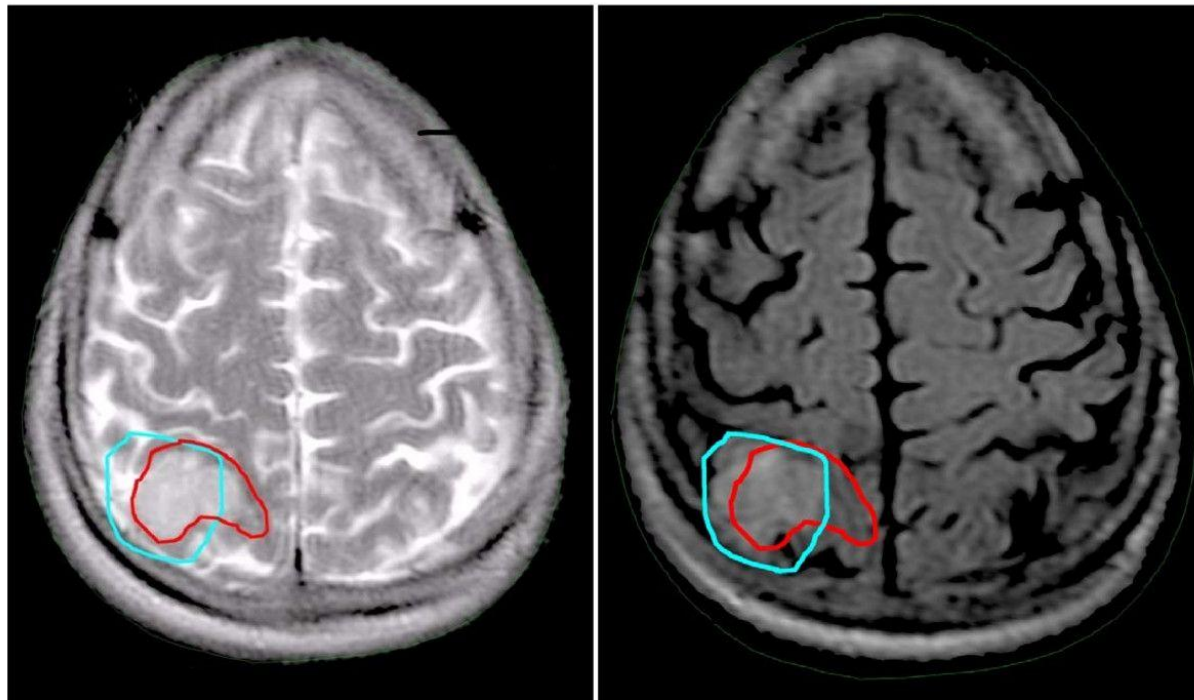
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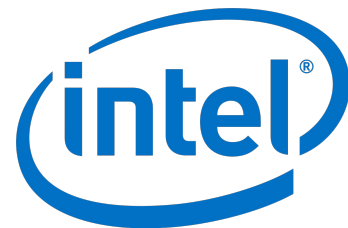


Ressonância Magnética



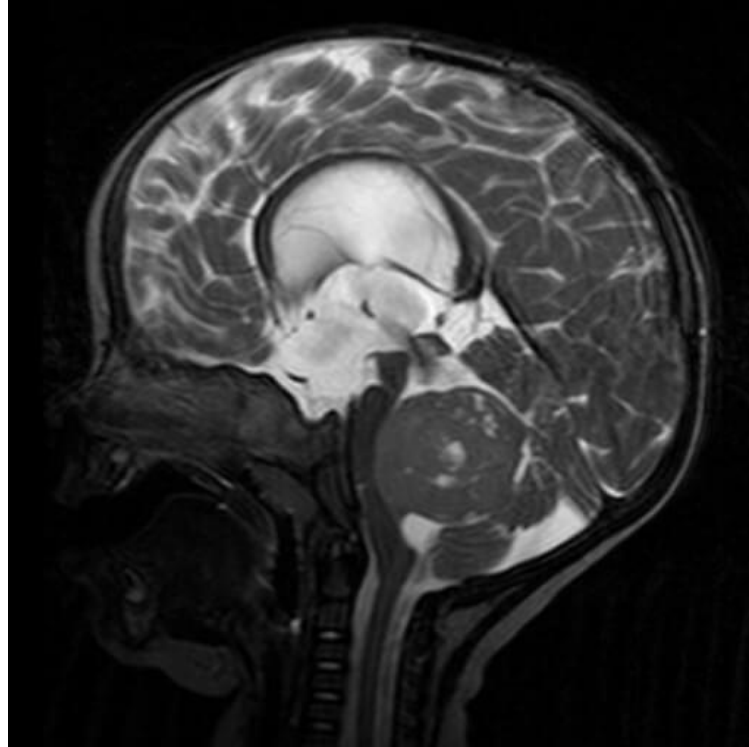
Ressonância Magnética

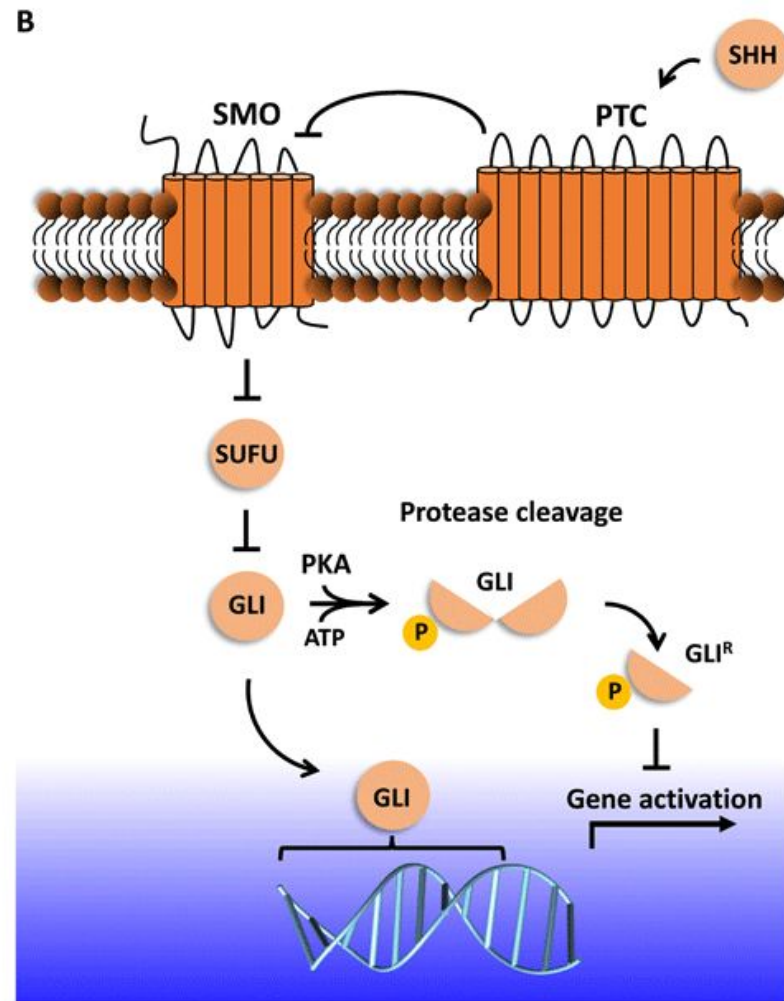
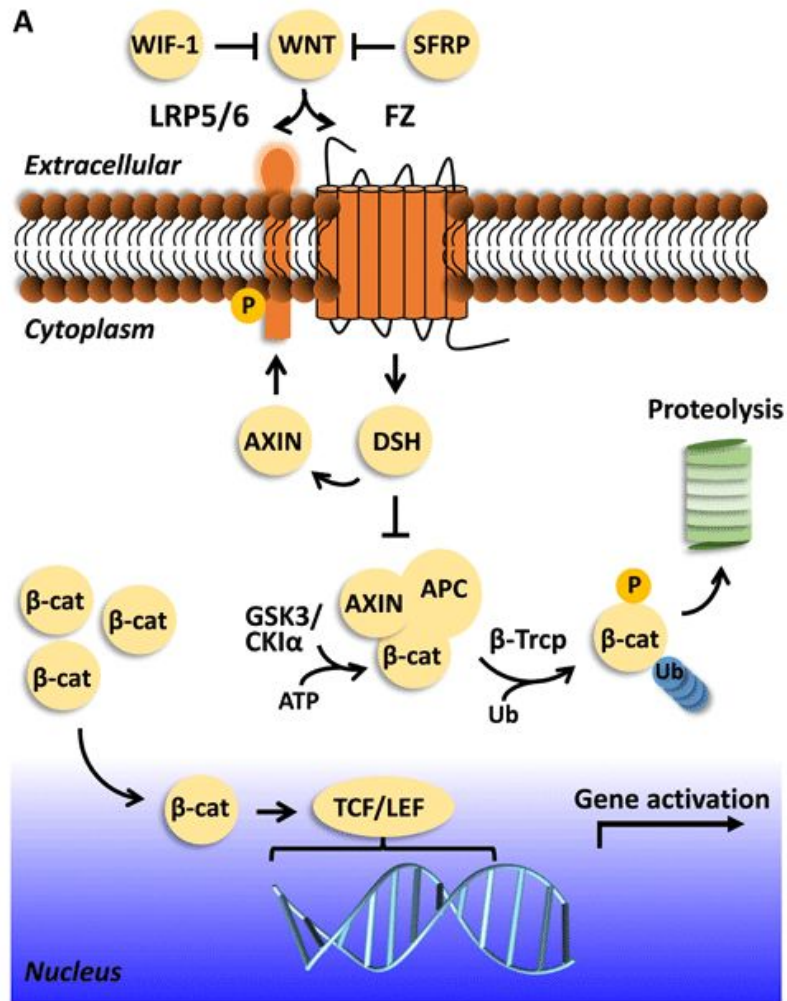


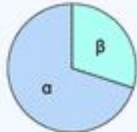
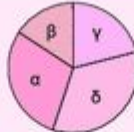
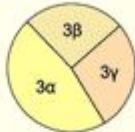
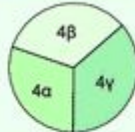
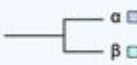
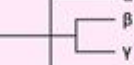
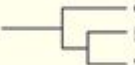



















Análise e construção do painel gênico das vias WNT, SHH, NOTCH e TGF- β com dados do perfil genético e análise de imagens para a tomada de decisão médica em aos pacientes com tumores pediátricos para tomada de decisão no prognóstico e tratamento.

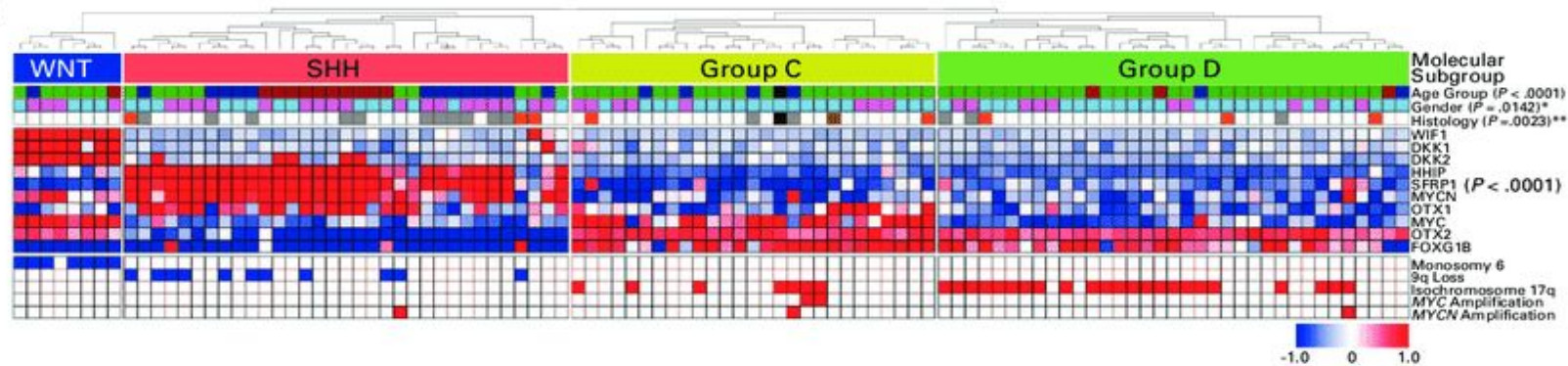
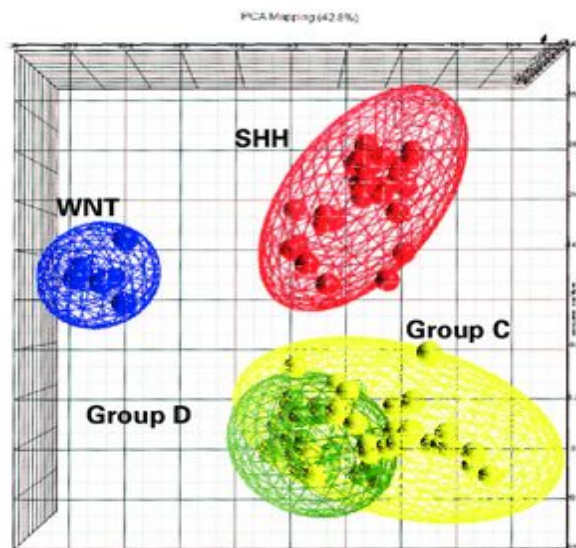
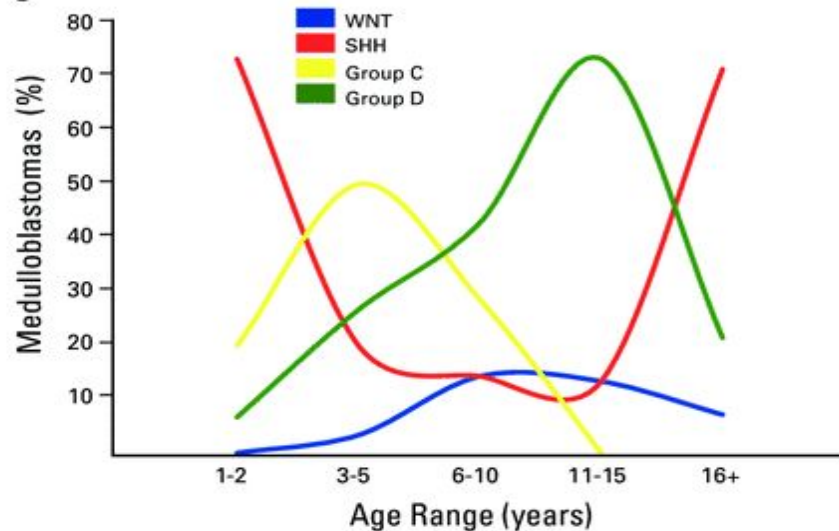
Meduloplastoma





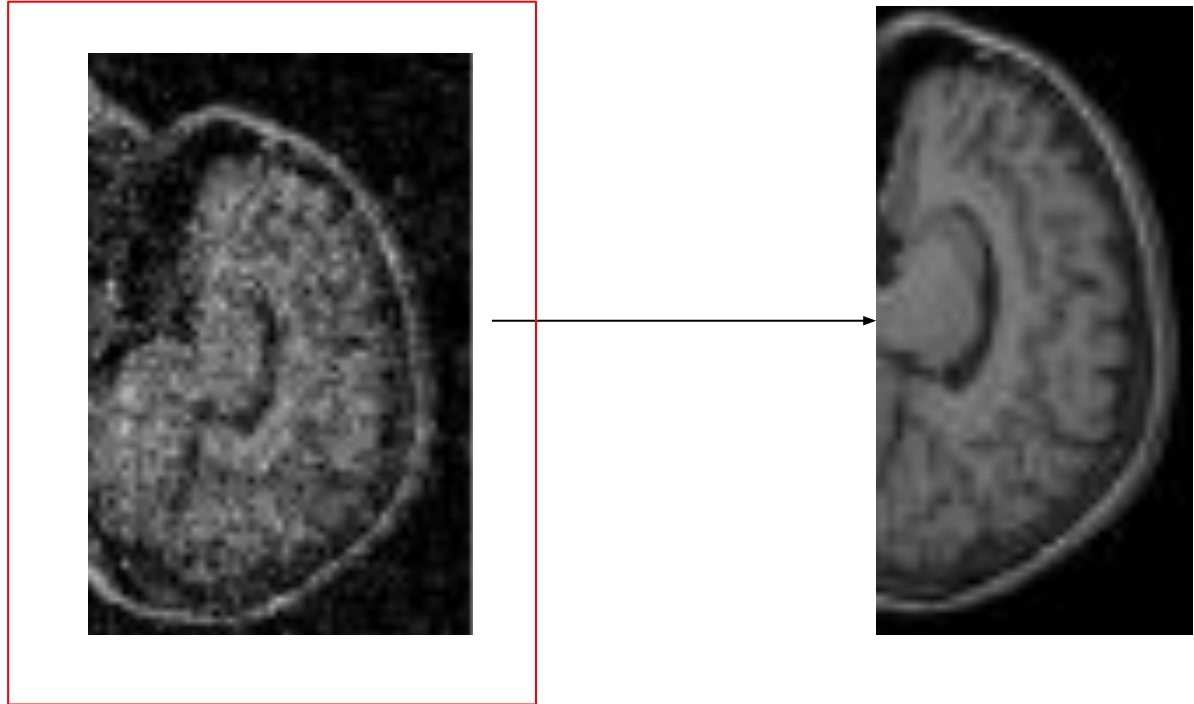
Subgroup		WNT		SHH				Group 3			Group 4		
Subtype		WNT α	WNT β	SHH α	SHH β	SHH γ	SHH δ	Group 3α	Group 3β	Group 3γ	Group 4α	Group 4β	Group 4γ
Subtype proportion													
Subtype relationship													
Clinical data	Age	 						 		 		 	 
	Histology			LCA Desmoplastic	Desmoplastic	MBEN Desmoplastic	Desmoplastic						
	Metastases	8.6%	21.4%	20%	33%	8.9%	9.4%	43.4%	20%	39.4%	40%	40.7%	38.7%
	Survival at 5 years	97%	100%	69.8%	67.3%	88%	88.5%	66.2%	55.8%	41.9%	66.8%	75.4%	82.5%
Copy number	Broad	6 ⁻		9q ⁺ , 10q ⁺ , 17p ⁻		Balanced genome		7 ⁺ , 8 ⁺ , 10 ⁺ , 11 ⁻ , i17q		8 ⁺ , i17q	7q ⁺ , 8p ⁻ , i17q	i17q	7q ⁺ , 8p ⁻ , i17q (less)
	Focal			MYCN amp, GLI2 amp, YAP1 amp	PTEN loss		10q22 ⁺ , 11q23.3 ⁺		OTX2 gain, DDX31 loss	MYC amp	MYCN amp, CDK6 amp	SNCAIP dup	CDK6 amp
Other events				TP53 mutations			TERT promoter mutations		High GF11/1B expression				

Age (years):  0-3  >3-10  >10-17  >17

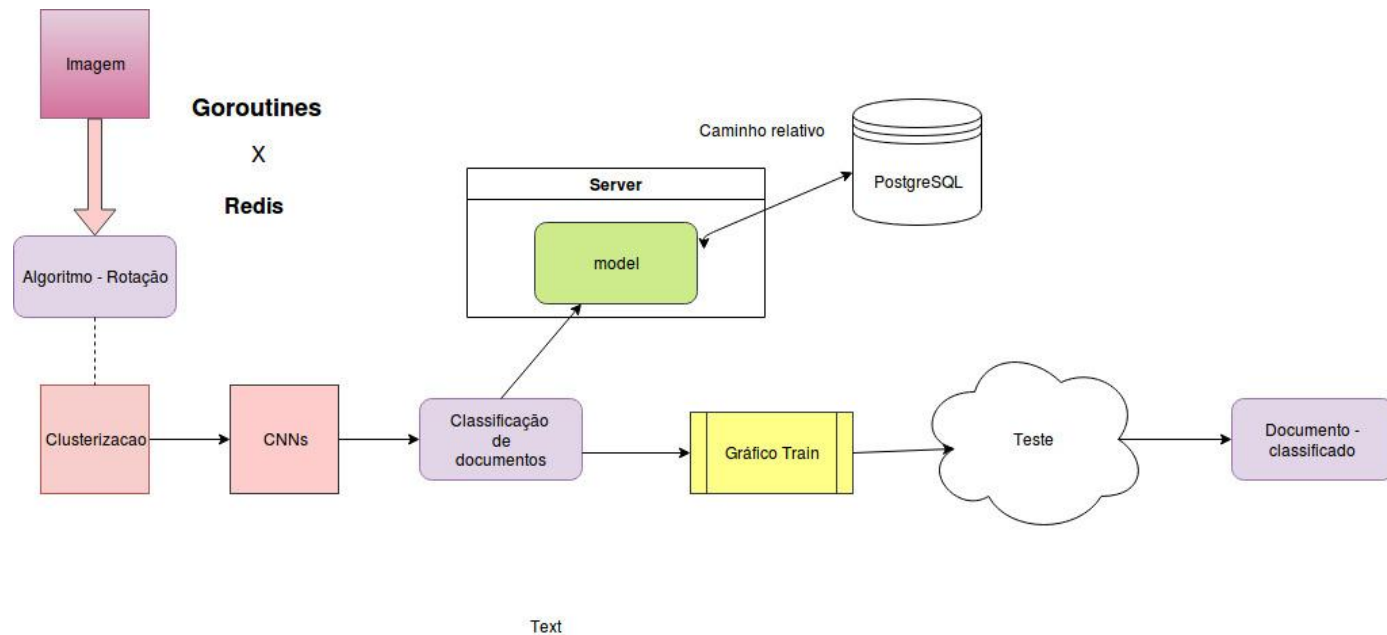
A**B****C**

Fluxo para o Treinamento de imagens

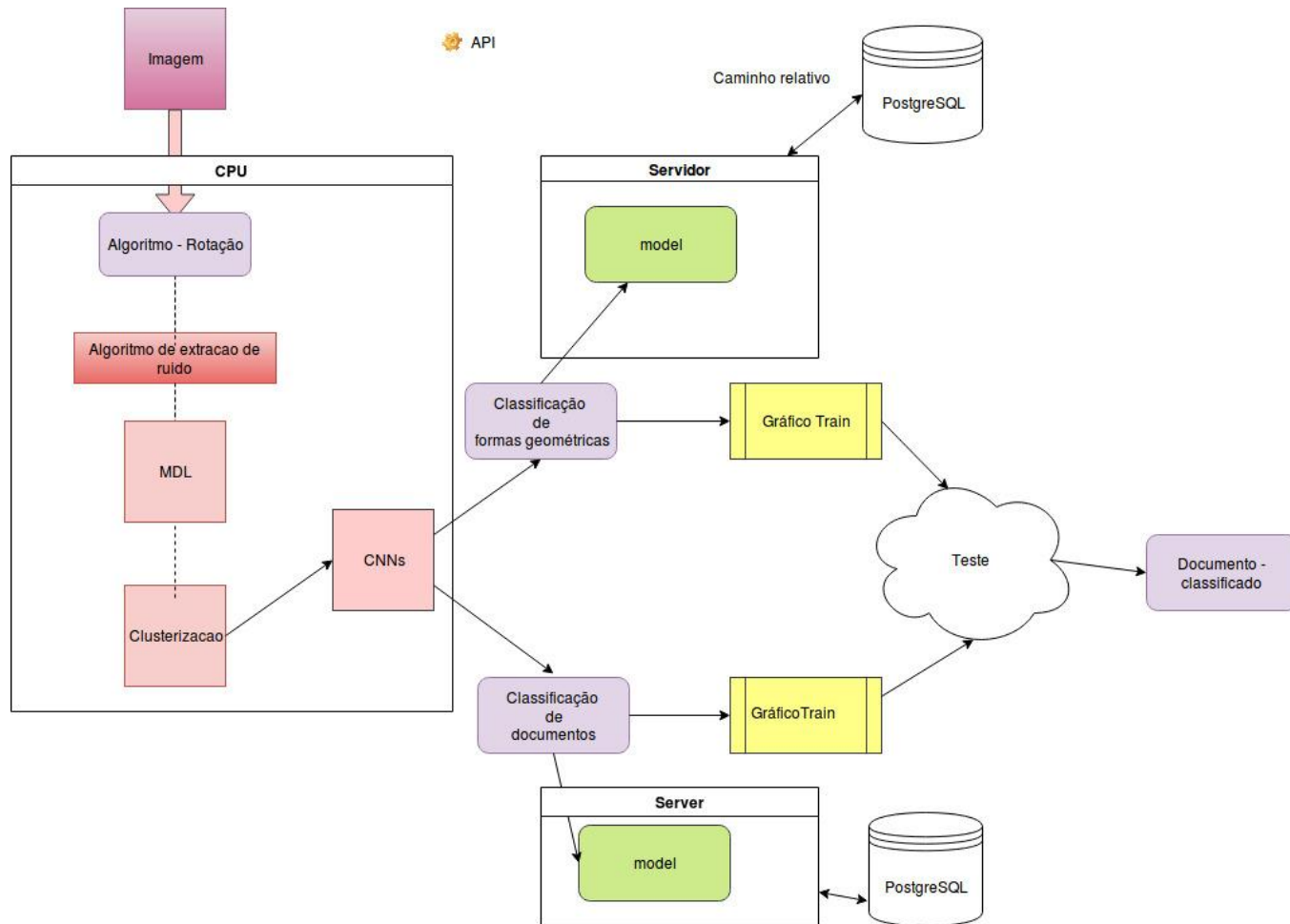
- Aquisição da imagem
- Filtros de imagem
- Modelo Bayesiano
- CNN



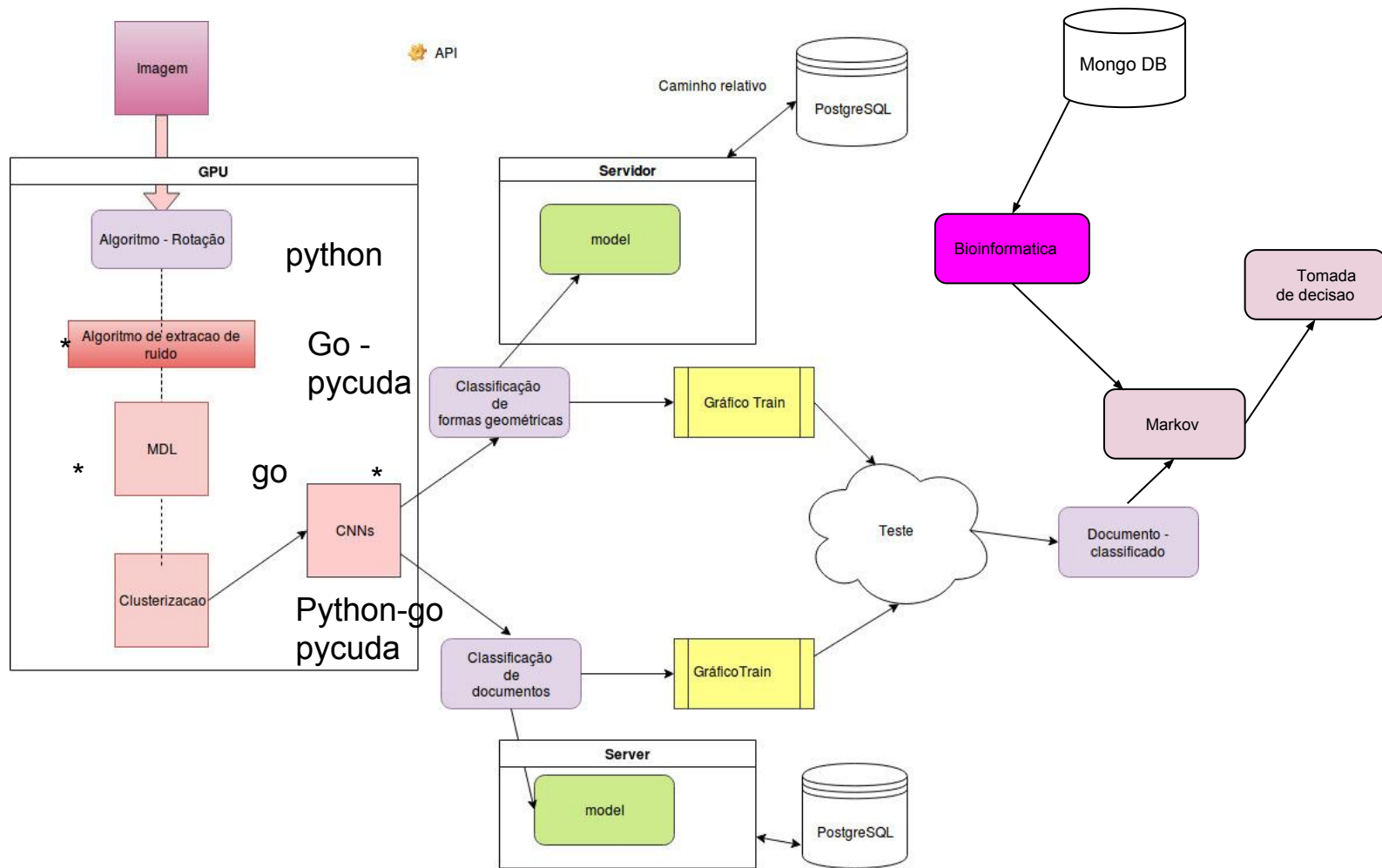
Primeira tentativa :(



Segunda tentativa :|



Terceira Tentativa :D



Obrigada!!!!

<https://github.com/paulinhacnn>

paulac.usp@gmail.com