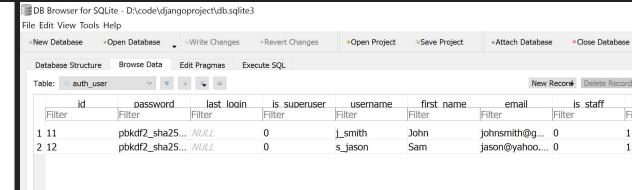


User Classification ZC files, login info Register Main Login GUI -Allow login-Upload ZC to CSV ZC files-Bin to PNG CSV -list[PNG, classification]-Database API -user credentials-Pulse cleaner user info _user data-Database PNG to Authenticator _binary__▶ Query maker int[][] Webserver Binary -list[binary, classification]-**Image** generator Query Data list[PNG] Data cleaning list[PNG, classification] Database Train/Test CNN -Training Data-Neural Network CNN Dev ←Feedback → Restore CNN

Overall System Model

< >	С	00	<> ⊕	localhost	t:8000/register/	
Regi	iste	era	tior	1		
Usernam	e: [Required. 150 characters or fewer. Letters, digits and @/./+/-/_ only.	
First nam	ıe:					
Last nam	e:					
Email:						
Password	f:					
 Your password can't be too similar to your other personal information. Your password must contain at least 8 characters. Your password can't be a commonly used password. Your password can't be entirely numeric. 						
Password	l conf	firmat	ion:		Enter the same password as before, for verification.	
Submit	Res	set Fiel	ld Car	ncel		
Welcome						
yo	u (cai	n lo	g ir	n here!	

Registration & User database

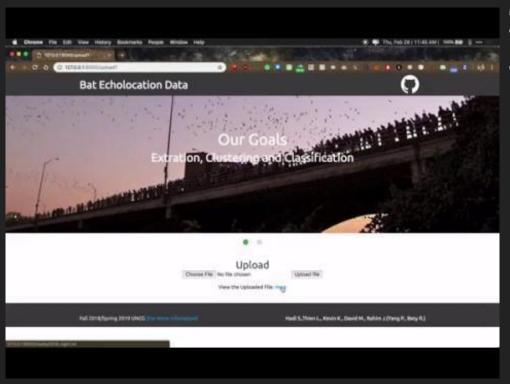


Login

Username:

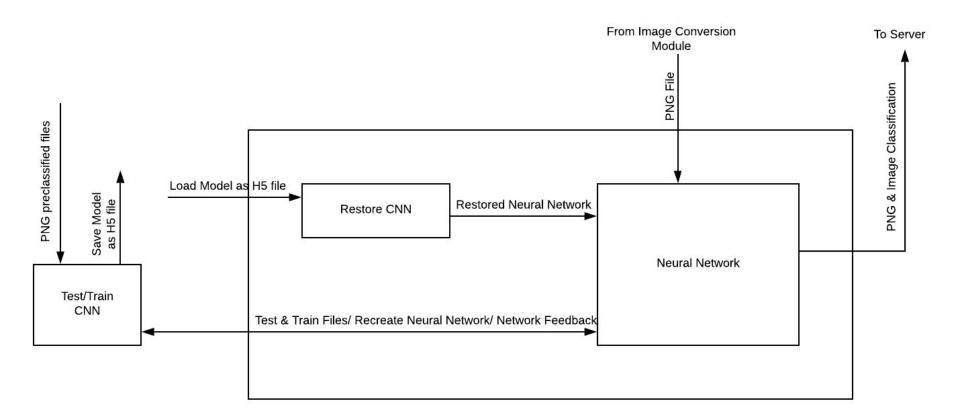
Password:

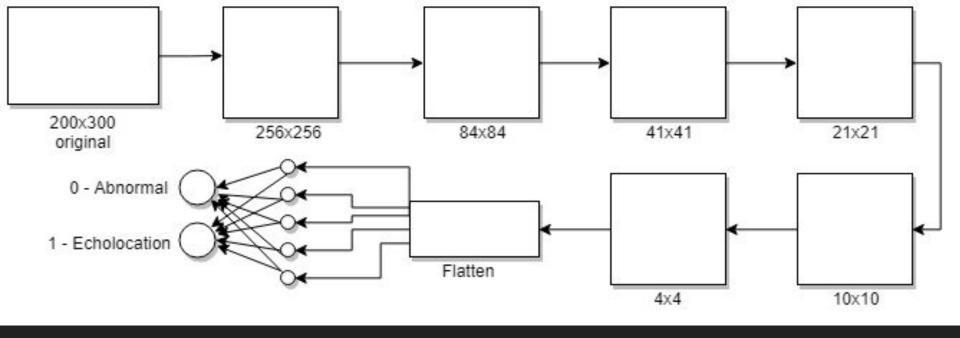
Login



Zero-crossing file analysis

Your Company Name





- Preliminary models showed high accuracy but bad predictions
- Researched information about other models
- Decided to make the convolutional and pooling layers by hand using their math formulas
- Resulting model showed higher accuracy with greatly improved predictions.
- Continued to test other image augmentations and setting changes to acquire better results



Manual Data Classification

Echolocation

P6242138 1 P6242138_2 P6242138_3 P6242138_4

P6242138 11

P6242138 16

P6242138_0

P6242138 5

P6242138 10

P6242138 15





P6242138 12

P6242138 17







P6242138 18













P6242138 19

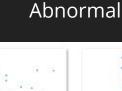
P6242138 9









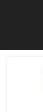


P6242202 3

../Bat Echolocation 2019/data/pulses/56110632....



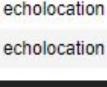












classification

echolocation

echolocation

echolocation







P6242221 21



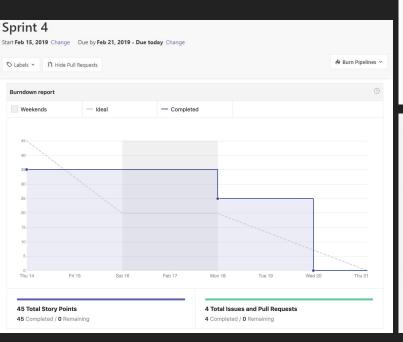


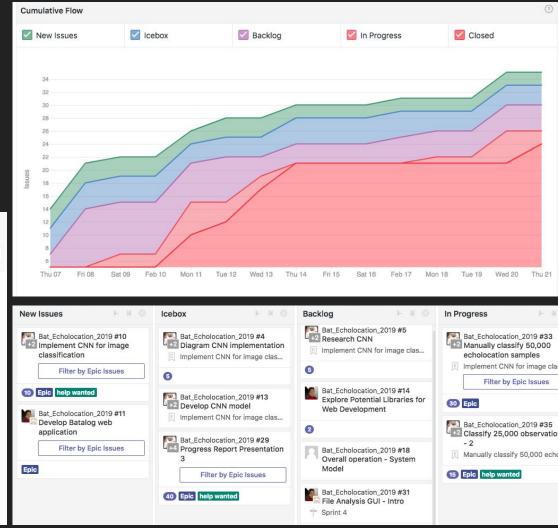






Scrum Sprint 4





Scrum Sprint 5

