

# Fire Scout

Drew Sansom

Nick Bollone

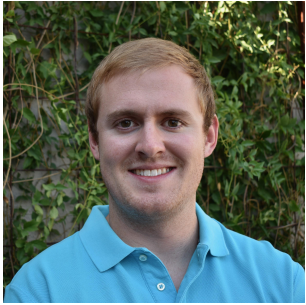
Jacob Hagan

Matthew Briody

Kenneth Klawitter



# Team



Drew  
Sansom



Nick  
Bollone



Jacob  
Hagan



Matthew  
Briody



Kenneth  
Klawitter

# Why Fire Scout



- California Fires (estimate as of Sep 2020)
  - 6,447 Fires
  - 2,246,483 Acres
  - Indirect Deaths: approx. 1,200
- Nationally 2019
  - 8,765 Fires
  - 1,001,587 Acres
- Dangerous to Monitor
- Lack of continuous data for responders

# Fatemeh Afghah, PhD



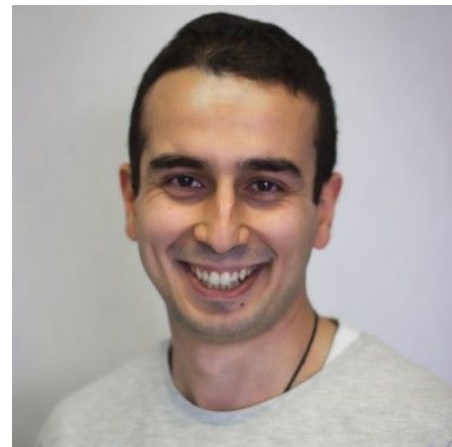
- Assistant Professor, School of Informatics, Computing and Cyber Systems (SICSS)
- Director, Wireless Networking and Information Processing (WiNIP) Laboratory



# Alireza Shamsoshoara



- Ph.D. Candidate At NAU
- Graduate Research & Teaching Assistant



# Problem

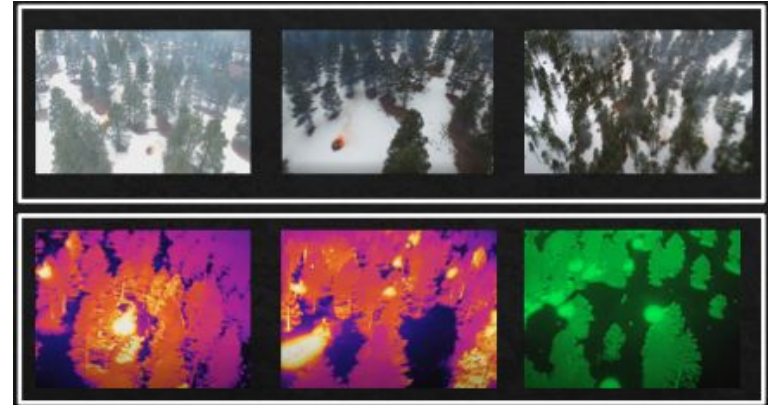


- Collecting data
- Transferring data
- Identify fire vs no fire
- Fire prediction
- Communication between drones
- Adequate cameras and hardware

# Solution



- Classification
- DNN
- Clustering
- Path Planning
- Image processing
- NVIDIA jetson nano
- DJI M200 drone



# Plan for Development



- Fire Classification - Machine Learning
- Study Image Classification Methods - DNN
- Implement Model on Drone's Computer
- Object Detection (humans, cars, ect.)
- Real time GUI for Ground Station





# Why Fire Scout



Our product allows first responders to collect real-time data in an accurate manner.

It allows to people to be safe outside of a fire, while still fighting the fire.

# Sources



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