

AKSHAT PATNI

PROJECTS AND RESEARCH

PYTHON DATA SCIENCE – EPIDEMIOLOGY

- Completing capstone project for Data Science Certificate
- Applying machine learning methods in Python to epidemiological data from COVID-19 and other pathogens
- Objective is to accurately perform disease modeling, based on the original SIR model

PARALLEL PROGRAMMING – K-MEANS CLUSTERING

- Used shared memory parallel programming (OpenMP) to create an optimized K-Means clustering data algorithm

FRESHMAN RESEARCH INITIATIVE – ASTRONOMY

- Applied Python machine learning methods to image frames captured via telescope in order to create an object tracking algorithm for White Dwarf stars

NEUROSCIENCE REVIEW ARTICLE – PEG FUSION

- Completed written research thesis for Neuroscience program
- Written review article studying PEG fused allografts and context within larger summary of nerve damage repair

PROJECT PORTFOLIO

- For a more comprehensive look at my projects and work, please take a look at my portfolio hosted on my github repository, linked at the top right

WORK EXPERIENCE

EMERGENCY MEDICAL TECHNICIAN

Evin's Medical Staffing - APH, Austin, TX / Mar 2021 - Present

- Worked as EMT at COVID-19 vaccination sites under Austin Public Health
- Organized and managed observation areas at different vaccine sites
- Lead teams of medics and safety officers to oversee large volume of hundreds of patients at a time
- Performed medical interventions on medically compromised patients who suffered acute reactions to COVID-19 vaccine
- Administered COVID-19 vaccines to patients

CLINICAL ROTATION; EMERGENCY DEPARTMENT EMPLOYEE

St. David's Medical Center, Austin, TX / Jul 2019 - Aug 2019

- Completed in-hospital clinical requirements for graduation of EMT program
- Individually conducted patient assessment on several patients and recorded data such as chief complaint, patient history,

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Portfolio Link:

<https://apatni97.github.io/>

EDUCATION

THE UNIVERSITY OF TEXAS AT AUSTIN

Austin, TX

BSA Neuroscience (Dec 2020)

Certificate in Data Science and Scientific Computation (Expected graduation Aug 2021)

LIFESTART EMT SCHOOL

Austin, TX

Licensing and Certification EMT (Aug 2019)

ADDITIONAL SKILLS

- ♦ Programming Languages: C++, Python, R-Studio
- ♦ Python libraries (NumPy, Pandas, SciKit Learn)
- ♦ TensorFlow machine learning library
- ♦ R-Studio data science libraries (dplyr, tidyverse, ggplot2)
- ♦ OpenMP and MPI parallel programming API extensions
- ♦ Microsoft Office Suite
- ♦ Critical Thinking
- ♦ Problem Solving
- ♦ Leadership and Communication

subjective and objective assessment findings, and record of relevant treatments

- Took and recorded vital signs for every patient interaction • Conducted EKG studies on several patients during assessment process
- Assisted doctors and nurses during non-surgical procedures with equipment handling, continuing assessment, and hands-on assistance during delivery of treatment

CLINICAL ROTATION; COUNTY EMS CLINICAL EMPLOYEE

Marble Falls EMS, Austin, TX / Jul 2019 - Aug 2019

- Completed in-ambulance clinical requirements for graduation of EMT program
- Conducted patient assessments during 911 calls, including subjective and objective assessments to determine patient condition, history, and best available diagnosis
- Executed diagnostic tests using equipment such as heart monitor, EKG testing, glucometer to measure BGL and physical tests using palpation
- Administered treatments such as bandaging and splinting, administering oxygen via nasal cannula and non-rebreather, administering IV fluids
- Assisted paramedics with updating supplies and maintenance of the ambulance

RELEVANT COURSEWORK

Neuroscience

- Neural Systems I & II
- Neurobiology of Disease
- Cellular Neural Development
- Basic Processes of Nerve Cells

Data Science

- Elements of Computing
- Parallel Computing for Science and Engineering
- Computational Bioinformatics
- Differential Equations
- Vector Calculus
- Linear Algebra

PERSONAL INTERESTS

- ♦ Acoustic and classical guitar
- ♦ Literature (scifi, fantasy, historical fiction)
- ♦ Sports (soccer, basketball, MMA, football, tennis)
- ♦ Dogs (and all animals)
- ♦ Exercise and fitness
- ♦ Astronomy, human spaceflight, futurism, and technology