NEEL CHAUDHARI

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OBJECTIVE

I am a computer and data science major with an inclination toward aviation. In the future, I plan to work on autonomous avionic systems and hybrid-electric propulsion to reduce flight costs and develop sustainable fuel alternatives for aviation.

RELEVANT EXPERIENCE

***Collins Aerospace,** Cedar Rapids, IA, *Software Engineering Intern* **Jun - Aug 2021**

- Worked with the Traffic Collision Avoidance System in the Avionics Department on developing a tool that dynamically creates controls in a WinForms application
- Standardized software that ensured reduction in number of certifications and associated costs

Mappix, Madison, WI, *Software Engineering Intern* **Mar - May 2021**

- Developed and debugged website for a Madison-based startup developing a cloud storage/social media platform for drone footage
- Managed the database using SequelPro

UW College of Engineering, Madison, WI, *Student Consultant* **Nov 2020 - Present**

- Coordinated, established, and debugged eLearning capabilities for academicians to ensure knowledge transfer over platforms like Canvas

RESEARCH EXPERIENCE

***Paliwal Lab**, UW-Madison Dept. of Human Oncology, *Computational Assistant* **Nov 2021 - Present**

- Currently developing and implementing an auto-contouring AI model leveraging retrospective contour, and curative/neo-adjuvant radiotherapy treatment selection data
- Extracting features from CT images (DICOM) and applying leave-one-out cross validation to generate a toolkit to ensure future decision-making

Informatics Skunkworks Lab, UW-Madison, *Undergraduate Researcher* **Jan - May 2021**

- Examined MAST-ML workflow performance, Citrination databases, and hyperparameter optimization
- Performed model fitting using ML workflow in MAST-ML, data cleaning, feature generation and engineering, assessment, model training, and reporting key performance metrics for predicting test data (RMSE, R2)

KEY PROJECTS

LastLock

- Developed an access management application for smart locks using Django and React Native for a Madison-based startup working on developing a smart lock system with shareable access. Deployed to AWS EC2.

FlightFinder App

- Spearheaded the ideation and development of a utility application that returns flights flying from MSN matching user pricing, destination and timing preferences, reading the data from a provided database
- Implements the Red Black Tree ADT in Java

Game of Pong

- Built and soldered together the Tiva Launchpad powered Buckyboard
- Programmed a 2-player game of pong using C language which makes use of the onboard joystick and arrow keys
- Demonstration video link: https://youtu.be/5_ScWEOjYsY

LUCID Inc. via Creative Destruction Lab

- Working on conducting competitive analysis of firms in the Music Therapy space for LUCID Inc through Creative Destruction Lab - Wisconsin. Analysis will cover competitive firm team strength, product, market, business model, IP, clinical and market validation

EDUCATION

University of Wisconsin - Madison, Madison, WI **Expected: Dec 2022**
B.S. Computer Science, B.S. Data Science, Minor in Economic Analytics **GPA: 3.78/4.00**
Awards: Dean's List – Sp20, F20, Sp21

SPECIALIZED SKILLS

Python – OOP, scikit-learn, numpy, matplotlib, selenium, flask, Django, A/B testing, scipy
Machine Learning in Python/R – Regression, Clustering, Decomposition, Parallelism, Optimization
Algorithms – Greedy, Divide and Conquer, Dynamic Programming
Programming Languages: Java, Python, C, C#, R, SQL, CSS, HTML, XML, JavaScript
Utilities: VS/Code, RStudio, Jupyter, Git, Emacs, Vim, SVN, Bash, Eclipse, Jira, React Native, MAMP, AWS, CentOS