

RONIL SYNGHAL

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EDUCATION

University of Pennsylvania | School of Engineering & Applied Sciences

- Candidate for M.S.E in Robotics – GPA: 3.83

Expected Dec 2022

University of Pennsylvania | School of Engineering & Applied Sciences

- B.S.E in Bioengineering – GPA: 3.72

May 2022

Relevant Coursework: Applied Machine Learning, Big Data Analytics, Biological Data Science, Human Systems Engineering, Product Design, Rehab Engineering/Design, Brain Computer Interface, Med Device Development

PROFESSIONAL EXPERIENCE

Illumina | UX Developer Intern, Experience Design Team

Jun 2022-Present

- Created a content management system in WordPress using insights from four research interviews with fellow UX designers, providing a tool for designers to generate consistent documentation for an internal product
- Completed two Jira tickets per week using Git, including documentation creation, quality control (QC) validation, and updates to CSS of a prototype of a product to be used by all design, development, product, and R&D teams
- Developed an internal tool using Angular Material to streamline/automate existing manual research data collection and calculation processes to save teammate time and prioritize function over design

Stealth Startup | Full Stack Engineer

May 2021-May 2022

- Designed end-to-end application for data driven psychological assessment of employee motivation using SQLite for databases, Python frameworks for API Design and NLP, and Plotly Dash and CSS for user experience
- Developed early warning system for nephrology practice leveraging ML techniques against 7 components of medical history to automate risk stratification for 3000 patients and reduce hospitalizations

Radhakrishnan Lab | Machine Learning Research Assistant

Jan 2021-Jan 2022

- Built trajectory models of the EGFR Kinase Domain using VMD and GROMACS to identify relevant structures of the 14 most prevalent cancerous mutations and extract data in a readable format
- Identified patterns across the 14 mutations to build a neural network in Python to predict the clinical consequences of any given mutation with the final goal of developing personalized cancer treatments

Additional Experience: **Inspirit AI** – AI/ML Instructor (Dec 2021-Present), **University of Pennsylvania** – Teaching Assistant for MSSP 607, Practical Programming for Data Science (Aug 2022-Dec 2022), **Kaiser Permanente** – Engineering & Business Analyst Intern, Chief Data Office (Jun 2019-Dec 2019)

SELECT PROJECTS

CliniCall | Children's Hospital of Philadelphia

Sep 2021-May 2022

- Developed wearable device and application allowing physicians in hospital to capture real-time patient conditions and communicate via audio/video with on-call attendings at home, replacing text streams of video calls and photos

Anime Recommendation Application | Personal

Jul 2021-Aug 2021

- Prototyped user interface in Figma and developed a content-based filtering recommendation system in Python using cosine similarity with factors such as genre and plot to generate anime shows similar to those already liked by users

CERTIFICATIONS, SKILLS, AND INTERESTS

Certifications: Google Data Analytics Certificate (In Progress), JPMorgan Chase & Co. Software Engineering Virtual Experience (Jun 2022), Training Neural Networks in Python (Jun 2021), SQL Essential Training (Sep 2021)

Skills: Python (Pandas, NumPy, Flask, Matplotlib, TensorFlow), JavaScript (Angular, Typescript, React), Git, SQL, HTML/CSS, WordPress, R, C++, Flutter, Figma, SolidWorks, Microsoft Office

Activities: Engineering Deans' Advisory Board, Penn Masti (Bollywood/Fusion Dance Team), Penn Data Science Group

Interests: Game of Thrones, Marvel Movies, Poker, Tennis, Tae Kwon Do, Music Production