Gunashree Channakeshava

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Education

University of Illinois Chicago **Aug 2023 – May 2025**
Master of Science in Computer Science - 3.8/4.0 *Chicago, Illinois*

Visvesvaraya Technological University (VTU) **Aug 2019 – July 2023**
Bachelor of Engineering in Computer Science - 8.62/10.0 *Bengaluru, India*

Experience

University of Illinois Chicago **Apr 2024 – Present**
Research Assistant - MEC Lab, Department of Biological Sciences *Chicago, Illinois*

- Conducting research on emission estimation of Biogenic Volatile Organic Compounds using **SMOKE Model on Ubuntu.**
- Enhancing air quality for data analysis and assisting in creating computational workflows for ongoing projects.

UI Health - University of Illinois Chicago **Jan 2024 – Present**
Marketing Graduate Assistant - Cancer Center, University of Illinois Health *Chicago, Illinois*

- Developed and maintained **WordPress website**, ensuring user-friendly designs and functionality. Provided video editing assistance to support marketing initiatives and campaigns.
- Contributed to full-stack development projects, including building a **Drug Name Generator** website showcased at the American Society of Clinical Oncology booth and created a **website for timelines** which highlights significant milestones in health equity and disparities research at UI Health.

Nano Kernel Ltd **Jul 2021 – Sep 2021**
Software Developer Intern *Bengaluru, India*

- Developed a product under the **India-Spain Bilateral Program** in consultation with **Indian Institute of Technology (IIT), Kanpur**, architecting and implementing a **bus scheduling system**.
- Communicated progress with clients, ensuring timely management and delivery of the product.

Projects

UI Health's vaccination management | *JavaScript, Angular, MongoDb, React*

- Developed a UI Health's vaccination management, for patient scheduling and nurse assignments to provide vaccination. Implemented the databases with the **MongoDb** Databases and integrated with the frontend.
- Designed a web-based GUI with **JavaScript, Angular**, integrating role-specific functionalities for admins, nurses, and patients. This implementation significantly improved overall operational efficiency by 45%.

Drug Name Generator (ASCO) | *Web Development, Full-Stack Development, React.js*

- Developed a **website** for the **UI Health booth** at the **American Society of Clinical Oncology(ASCO)**, featuring a **Drug Name Generator** tool to engage and educate visitors using React.js.
- Integrated an interactive and user-friendly interface to enhance visitor engagement and showcase innovative healthcare solutions.

MedCo - Webapp to Simplify Reports | *Web Development, Data Visualization, User-Centric Design*

- Designed and developed a **web application** to simplify medical test reports with **interactive visualizations, secure user authentication, and personalized health recommendations** using **React.js**.
- Enabled report uploads, medical term lookup, and intuitive health data analysis through charts, graphs, and tailored insights for improved user experience.

Chicago Crime Data Visualization | *Data Visualization, D3.js, React.js, Vega-Lite*

- Developed several visualizations using **D3.js and Vega-Lite**, including visualizations depicting monthly crime statistics, an interactive time series area chart, explored crime types, and displayed crime density.
- The visualizations provided an interactive analysis of various factors, including temporal crime patterns, geographical crime distributions, and crime types.

Impact of Toxic Release Inventory (TRI) Facilities on Chicago | *Data Visualization, Geospatial Analysis,Shapely, API*

- Developed a smoke diffusion simulation using **Python, integrating geospatial data, wind patterns, and TRI facility emissions,** utilizing libraries like **NumPy, GeoPandas, and Matplotlib** for data processing and visualization
- Incorporated real-time wind speed and direction data using the **OpenWeatherMap API** and implemented interactive animations to visualize diffusion and dissipation patterns over a geographic grid of Chicago and also determined the schools that might get affected due to the toxic releases of the TRI facilities.

COVID-19 on small businesses in Illinois | *Data Science, Machine Learning Models*

- Analyzed the impact of COVID-19 on small businesses in Illinois using **machine learning models** - Random Forest and Gradient Boosting to predict resilience and loan forgiveness.
- Visualized economic trends, demographic disparities, and conducted clustering and survival analysis to identify intervention regions and predict loan payoff duration.

Skills

Programming Languages: C, C++, R, Java, Python, SQL, Bash, JS, Shell Scripting, Ubuntu
Web Technologies : HTML, CSS, JS, Angular.JS, ReactJS, Vue.js, Node.js, Flask, Django, Bootstrap, Flutter, Typescript, Docker, Wordpress, Redcap, MAXQDA, Tableau
UI/UX Technologies : UI/UX Design Principles, Figma, Adobe XD, Wireframing, Prototyping
Cloud/Database: AWS(S3, EC2), MySQL, MongoDB, MariaDB, PostgreSQL.
Libraries/Data Processing: Scikit Learn, Numpy, Keras, Selenium, Matplotlib.

Leadership / Involvement

- Pursuing **Google UI/UX Design Certificate** from Coursera.
- Completed **Cisco Data Analytics Essentials** from Cisco Networking Academy.
- Worked as a **Coordinator of IT Virtuoso Club** of Computer Science and Engineering department of Global Academy of Technology and have hosted many technical and non technical events for my peers.
- Hold the credit of winning the **24 hours State Level Hackathon "HACK-A-LEAGUE".**