

Pranav Dulepet

(925) 997-0461 | pdulepet@umd.edu | [linkedin.com/in/pranavdulepet](https://www.linkedin.com/in/pranavdulepet) | github.com/pranavdulepet

Education

University of Maryland - College Park, College Park, MD - B.S. in Computer Science - Machine Learning Aug 2021 - Dec 2024

- **Honors:** Dean's List
- **Programs:** QUEST Honors (Quality Enhancement Systems and Teams), FIRE (First-Year Innovation and Research Experience) - Capital One Machine Learning Track

Experience

Evozyne: Software Engineer Intern, Chicago, IL

Jun 2022 - Aug 2022

- Optimized the Gene Synthesis process with [SMT solvers](#) to make the model 5x faster
- Visualized Gene Synthesis data to determine where the current model lacked efficiency and accuracy
- Learned and implemented Z3 (Microsoft Research SMT Solver)
- Utilized Python, SMT Solvers, Algorithm Design, Seaborn, Pandas

Hack4Impact: Software Engineer, College Park, MD

Sep 2021 - Present

- Technical Lead at the University of Maryland Chapter
 - Collaborating with Edu-Futuro, a Virginia-based company focused on helping immigrant families (**start Sep 2022**)
 - Collaborated with Step Up Tutoring, a California-based non-profit democratizing access to online tutoring and mentorship for students to develop a portal for over 2k students (**start Jan 2022, end May 2022**)
 - Utilizing MERN (MongoDB, Express, React, Node.js)
- Software Engineer at the National Engineering Committee (**end Jan 2022**)
 - Helped build a Database to keep track of all Hack4Impact members across all 15 universities
 - Designed and developed the Hack4Impact mobile app for iOS and Android for 800+ members

University of Maryland - College Park: Research Assistant, College Park, MD

Jul 2021 - Aug 2022

- Implemented Python (OpenWPM) to collect and analyze data on persistent identifiers in the Web, AWS EC2 instance to run experiments, Python and HTML to visualize data.
- Worked under Professor Ido Sivan-Sevilla in the School of Information on "Contextual Privacy in the Web".

Projects

CollegeRO | Full-Stack iOS Development, Rest APIs, MongoDB, AWS, GitHub, Google/Firebase Analytics

- Launched [CollegeRO](#) on the App Store helping college students find research opportunities, reaching a peak of 1k app units.
- Implemented and integrated a REST API, AWS services, MongoDB with Python and Node.js.
- Used Swift, Python, Node.js to develop the backend and Rest API, used SwiftUI to develop the UI/UX

Music Recommender | TensorFlow, Keras, K-Nearest Neighbors, Triplet Loss, Python, Google Colab, GitHub

- Conducted ML research through recommending songs based off of user data in the form of playlists as part of the FIRE program
- Researched and implemented novel research techniques related to Triplet Loss and K-nearest neighbors
- Presented project in the UMD FIRE research symposium and added full documentation into [GitHub repository](#)

UMDNext | Product Design, Customer and Market Research, Figma, Microsoft PowerPoint, UI/UX

- Redesigned the NextBus app with accessibility features to make the app easy to use for all, especially those with disabilities
- Presented to Amazon professionals and UMD Dept. Chairs, **Won 2nd place at the Annual Amazon-UMD Symposium**

Aura | Full-Stack iOS Development, NLP Libraries, Google Cloud, GitHub

- Implemented speech-to-text, audio/video recording, and the backend flow to record uncomfortable situations and interactions based on keywords the user says.

LegalAI | scikit-learn, spaCy, Elasticsearch, Textacy, Blackstone, pytextrank

- Trained and tested documents from the Supreme Court and other legal groups to apply NLP techniques such as Classification, Similarity, Summarization. [Implemented](#) TF-IDF, LDA, BM25, textrank, etc.

Things Near Me | Full-Stack iOS Development, Swift, UIKit, Firebase

- Developed [Things Near Me](#), for people to share the availability of supplies in the neighborhood, reaching a peak of 1.6K app units.

Signs To Leads | Full-Stack iOS Development, Swift, UIKit, Firebase

- Created [Signs To Leads](#) on the App Store (18K impressions) for realtors to find the optimal locations for placing open house signs.

Skills

- **Languages/Technologies:** Python, Java, Swift, JavaScript, HTML, CSS, GitHub, Jupyter Notebook, AWS
 - **Libraries/Frameworks:** FastAPI, Pandas, MongoDB, Firebase, SQLite, React, Seaborn, Z3
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