Vijit Dua

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Education

University of California, Davis   Sept 2023 – June 2027
Bachelors of Science, Computer Science

Languages & Tools (**bold** = highly experienced)

- Frameworks & Tools: **React**, React Native, Expo, **Express**, FastAPI, Django, **Material UI**, HTML, CSS
- Languages: **JavaScript/Node.js**, TypeScript, **C++, C,** Python, Java
- Machine Learning: PyTorch, TensorFlow
- Databases: **MySQL**, PostgreSQL, MongoDB, FireStore
- Dev. Ops: Git, GitHub, Docker, AWS EC2, Firebase, Linux, NGINX, AWS Cognito

Experience ([blue](#) = links)

(KAIST) Korea Advanced Institute of Science & Technology | <u>Deep Learning</u> Research   July 2024 - July 2024
- Selected as **one of 18 students worldwide** for a summer research program at KAIST.
- Implemented a **UNet** and **Attention UNet** model to automate road infrastructure detection using satellite imagery, aimed at reducing manual labor in road mapping, through **deep-learning.**
- Curated and preprocessed data from datasets like Massachusetts and SpaceNet, and corrected known errors.

Icarus Development | Team Lead – Web Development & Software Engineer   May 2024 - present
- **Team Lead** – Web Development [webpage]
  - **Leading** a **team of six software engineers** and two designers through project design and development. Designing project skeletons, managing branch merges, and production deployments.
  - Successfully completed **first deployment in 14 days**, ahead of 1 month timeline.
  - Actively coding with **React.js,** Material UI (frontend); & **Fast API** (backend).
  - Managing company DNS & deployments on Linux server with NGINX and Certbot SSL for all subdomains.
- Mobile Developer – Davis Dot (social media app)
  - Davis Dot is a social app that unites users over deep, personalized interests.
  - Building using TypeScript and **React Native with Expo** to build the **iOS & Android app**
- Internal Tools
  - Building an admin panel with React and FastAPI to allow non-developers to modify specific website data without updating the codebase.
  - Developing a Discord bot to streamline team communications and information management.

SchoolHouse.world – Volunteer Peer Tutor   August 2022 - January 2023
- Tutored students in AP Physics & SAT
- Received **98% positive ratings** among a total of **190+ ratings**
- Ranked **"Most Helpful Tutor of the Week" 5 times consecutively**
- Audited sessions to measure quality and safety.

Projects & Activities ([blue](#) = links)

InnoMate – *(Full Stack) App to Connect Like-Minded Individuals*   May 2024 - present
[webpage]
- Web app aimed at connecting like-minded individuals for collaborative innovation & productivity.
- Building frontend using React.js & Material UI; Building backend using a combination of Express.js and Firebase.

TaskUp, HackDavis '24 – *(Full Stack) Competitive Task Tracking App*   April 27, 2024 - April 28, 2024
[github], [demo video]
- Developed and Launched a mobile web app from scratch in under 24 hours for HackDavis 2024, making it accessible online for any user instantly.
- TaskUp is a task-tracking app that allows users to manage daily tasks, integrating competitiveness & collaboration.
- Built frontend using React & Material UI; Built backend using Express.js, Node.js, MySQL.
- DevOps & hosting: AWS EC2, Docker, nginx, Cloudflare (SSL, DNS)

TicTacToe – *(Full Stack) Multiplayer Webgame*   March 2024 – April 2024
[github]
- Full stack tic-tac-toe game supporting player vs. player matches over the internet.
- Built frontend using React & Material UI; Backend using Node.js, Express, MySQL
- DevOps & hosting: AWS EC2, Docker, nginx, certabot (SSL), AWS Route 52 (DNS)

Achievements

Dean's Honor List (Fall Quarter 2023),