Abinavraj Ganesh Sudhakar

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University of Texas at Austin | Class of 2024

- B.S.: Computer Science, BS: Math, GPA: 3.877, Turing Scholar Student (Computer Science Honors Program)
- Coursework: Data Structures, Computer Architecture, Operating Systems, and Computer Vision

Skills & Tools

Languages: C, C++, Verilog, x86 Assembly, Matlab, HTML, CSS, JS/JQuery, Flutter, PHP, SQL, Python, ReactJS/Redux, ReactNative, ThreeJS, Java, NodeJS, MongoDB, ElectronJS, Flask
Tools: Firebase, AWS, DigitalOcean Droplet, Android Studio, Arduino, Raspberry Pi, IBM Cloud, Bootstrap, Tensorflow, Keras, MongoDB Atlas, WebRTC/SocketIO, Twitter API, Mujoco/OpenAI Gym, Quartus Prime

Work Experience

Data Engineering Intern| H-E-B   Jun 2021 – Aug 2021
- Created **Argo** workflows in **Python** using **AWS** and **Kubernetes** for transferring data between **Teradata** and **SQL**.

Software Developer | Kreeda   Dec 2020 – Jan 2021
- Helping develop features for an e-commerce startup with website SEO and UI using **ReactJS**, **MongoDB**, and **NodeJS**.

Research | University of Houston   Sept 2018 – Dec 2019
- Developed an app that collects accelerometer data for sleep analysis using **ReactNative**, Google **Firebase**, and **AWS**.

Software Engineering Intern | Hewlett Packard Enterprise   Jun 2018 – Aug 2018
- Constructed a dashboard for the new iLO chip to monitor server chassis using **Redux**, a RESTful API, and **ReactJS**.

Personal Projects

FPGA RoboCop   2021
- Built a robot car controlled by an Intel Cyclone FPGA with a custom pipelined CPU architecture with **Verilog** and a hex ISA created through an assembler in **Python** and custom **Assembly**.

Robosuite Reinforcement Learning   2020
- Used reinforcement learning algorithms (like DDPG, PPO, and TRPO) to train a robot to pick up a cube using **Tensorflow**, **Keras**, stable-baselines, and the **Mujoco** 3D Physics simulator for the UT Robot Perception Lab

EdFusion   2020
- Built a desktop app with **ElectronJS** and **Node** and a mobile responsive website with HTML, CSS, JS, **Express API**, and **MongoDB Atlas** to make an education system for anonymously clearing classroom confusion.

Dokanda   2020
- Built a video chat application for remote healthcare with real time translation for Indonesia using **ReactJS**, **SocketIO**, **Express**, **NodeJS**, **PostgreSQL**, and **WebRTC**.

FakeUrGram   2020
- Constructed a Generative Adversarial Network to draw art using **Tensorflow** and **Keras** for a **Flask** API.

thecookingbot   2020
- Built an IoT solution for safe cooking with **Firebase**, **Arduino**, and **ESP8266** connected to a **ReactNative** app.

OTHS CMS Web   2019
- Built a competition management system allowing for file submission, auto-grading, authentication system, and other functionalities for UIL Computer Science Competitions using **ReactJS, PHP, CSS, HTML, SQL**, and **Java**.

Awards & Honors

- **ModHacks 1st Place:** Won 1st place in the education track for a tech solution to student confusion.
- **Garuda Hacks:** Won top 12 out of 200+ submissions that aid Indonesia for the Wolfram Award.
- **Sigmahacks:** Won the "Best use of Google Cloud Award" for creating a charity to fund online courses.
- **HPE Special Recognition:** Recognized specially by CTO, Mark Potter, for my iLO GUI project presentation.
- **Robotics:** Competed at the global scale and selected as Most Valuable Programmer.

Leadership & Organizations

Advancing UT Technology | Founder & President | Aug 2020 - Present
- Constructed a campus tech consulting club to bring a technological future to UT.

UT Sciences Toastmasters | Member at Large (Exec Team) | June 2020 - Present
- Following the Persuasive Influence pathway for professional persuasive speaking and presentation skills.

Boy Scouts of America | Eagle Scout | Apr 2014 - Nov 2020
- Held multiple leadership positions within Troop 584 at camping trips and meetings.