

ABHINAV R. KOLLI

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EDUCATION

The University of Texas at Austin	Bachelor of Science, Computer Science Honors	May 2025
	Bachelor of Business Administration, Canfield Business Honors	May 2025
	Overall GPA: 3.70/4.00 Business Honors GPA: 4.00/4.00	

Organizations: Convergent Forge Startups, 180 Degrees Consulting, Product@TX Fellowship, Delta Sigma Pi, CSB Association

TECHNICAL SKILLS

Languages/Tools: Python, Java, Terraform/HCL, JavaScript, Node.js, HTML, CSS, Sass, ARM, C, C++, Swift, SQL, LaTeX, Git, R
Technologies: React, React Native, AWS, GCP, Flask, TensorFlow, Keras, Sklearn, Firebase, MongoDB, Figma, AppDynamics
Certifications: AWS Solutions Architect – Associate (2022), Google Cloud – Associate (in progress)
Relevant Honors Coursework: Data Structures, Computer Architecture, Discrete Mathematics, Statistics/Probability, Linear Algebra

EXPERIENCE

Sabre – Cloud Software Engineer Intern May 2023 – Present

- Achieved 27% increase in GCP provisioning success by building Terraform private modules for Pub/Sub, GCS, and cloud functions
- Averted 7 Pub/Sub message backlog events by monitoring 8+ vital metrics with AppDynamics agents, alert policies, and dashboards
- Streamlined deployment testing of cloud infrastructure by implementing company CI/CD Jenkins tool “Armada” and Ansible Tower

Forge Startups – Software Engineer Lead September 2022 – May 2023

- Migrated Austin startup VlogMi vlog software to React Native from iOS and scheduled biweekly sprint meetings to update founders
- Enhanced VlogMi monetization screen with Figma and wagmi graphs, leading to 65% higher UI and user flow customer satisfaction
- Built ShoMe e-learning app’s landing, home, and find pages with React Native, Firestore, and OAuth2 with 33% faster data retrieval

Behavior – Machine Learning Engineer Intern August 2022 – December 2022

- Designed XGBoost and Bayesian Optimization model pipeline with parallel multiprocessing to improve testing efficiency by 32%
- Extracted 3M records of 5K patients’ health data from Garmin into Firestore using automated scripts to process in company’s IaaS
- Analyzed pulse oximetry metrics and oxygen desaturation index as features for XGBoost, yielding a 7% increase in model accuracy

Kalvi Prep – Software Engineer Intern & Instructor May 2021 – August 2021

- Oversaw backend services team with integrating Firestore API and validating student data in React, boosting data accuracy by 97%
- Launched final website with team using agile development practices, resulting in 25,000 page visits and 2,300 student interest forms
- Established a 32-week Java Computer Science and Data Structures virtual program with advanced lab assignments to 600+ students

University of Texas at Dallas AI Labs – Machine Learning Research Intern June 2020 – July 2020

- Trained an ARIMA-LSTM neural network to predict 71% of next month’s stock close prices using Yahoo API’s time-series data
- Constructed an epsilon greedy DQN learning agent called StockBot and led its experiments to simulate stock trading over 500 days
- Co-authored university research paper on model’s forecasting performance and procedure for conducting simulation on 4 stocks

PROJECTS

Austin Disaster Relief Network – React Native, Envoy April 2023

- Created non-profit’s QR code scanning app to allow admins to verify volunteer badges through UUIDs upon entering disaster zones
- Connected scan results with API to organization’s Envoy database, permitting 6.5K volunteers to update roles after check-in process

Gamai – Python, Flask, React.js, HTML, CSS, TensorFlow, Keras, AWS S3 Buckets January 2023

- Deployed AWS static website showcasing reports of deep reinforcement learning agents playing against custom-made React games
- Crafted DQN agent to live train against cloned version of 2048 game using OpenAI and Keras and succeeds in less than 300 trials
- Integrated pathfinding visualizer to study A* search, Djikstra’s, BFS, and DFS algorithms with unique heuristics and wall generators
- Developed experimental interface for Q-learning agent to play Snake with adjustable parameters and achieved length 65 in 400 trials

Web Crawler & Search Engine – Java, JavaFX, JUnit November 2022

- Produced a web crawler to traverse parsed HTML pages and devised an efficient web index to store keywords from these websites
- Expanded search engine GUI to process phrase and logical operator queries and tested functionality using JUnit and black box tests

SPI: Sentiment Analysis API – Scikit-Learn, Python, FastAPI, SwaggerUI August 2022

- Recorded results of over 85% accuracy for decision tree, multinomial naïve bayes, and SVCs on predicting airline reviews sentiment
- Utilized Colab to vectorize inputs and test sklearn models, while designing an API and interface to adjust parameters and new inputs

HONORS AND AWARDS

- University Honors Outstanding (x2) – *Achieved above a 3.5 GPA in previous semesters with double honors* Spring 2023
- USA Computing Olympiad Gold – *Received a perfect score in US Open Silver Division* Spring 2020
- 1st Place HackSMU State Farm Sponsor Award – *Utilized company’s database for roadside awareness app* Spring 2020
- 2nd place EarthXHack State Farm and Oxy Sponsor Awards – *Placed out of 200+ hackathon competitors* Spring 2019