

# ABHINAV R. KOLLI

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## EDUCATION

<b>The University of Texas at Austin</b>	Bachelor of Science, Computer Science Honors	May 2026
	Bachelor of Business Administration, Canfield Business Honors	May 2026
	Cumulative GPA: 3.78/4.00	
<ul style="list-style-type: none"><li>• <b>Relevant Honors Coursework:</b> Data Structures, Computer Organization &amp; Architecture, Linear Algebra, Discrete Mathematics, Multivariable Calculus, Probability &amp; Statistics, Management Information Systems</li><li>• <b>Organizations:</b> Texas Convergent Forge Startups, UT Programming Contests, CSB Association</li></ul>		

## EXPERIENCE

<b>Behavior</b> – <i>Pittsburgh, PA (Remote)</i>	August 2022 – December 2022
Machine Learning Engineer Intern - <i>Python, TensorFlow, Keras, Google Cloud, Firebase</i>	
<ul style="list-style-type: none"><li>• Designed XGBoost and Bayesian Optimization model pipelines with multiprocessing to improve testing efficiency by 32%</li><li>• Deployed testing framework of XGBoost model into Google Cloud and stored opioid prediction results into Cloud Firestore</li><li>• Extracted 3 million records of opioid patients' Garmin metrics from Firestore to process in company's Terraform Iaas</li></ul>	
<b>Kalvi Prep</b> – <i>Atlanta, GA (Remote)</i>	May 2021 - August 2021
Software Engineering Intern & Instructor - <i>React Native, MongoDB, JavaScript, Java</i>	
<ul style="list-style-type: none"><li>• Oversaw backend services team for website's database, interest form, and mobile features using MongoDB and React Native</li><li>• Established institute's 32-week Java Computer Science Data Structures course to 600+ registered students</li><li>• Launched final website with team using agile development, resulting in 25,000 page visits and 2,300+ student interest forms</li></ul>	
<b>University of Texas at Dallas AI Labs</b> - <i>Richardson, TX</i>	June 2020 - July 2020
Machine Learning Research Intern – <i>Python, TensorFlow, Keras</i>	
<ul style="list-style-type: none"><li>• Trained an ARIMA-LSTM neural network to accurately predict 71% of next month's stock close prices using time-series data</li><li>• Constructed an epsilon greedy DQN learning agent called StockBot and led experiments to simulate stock trading over 500 days</li><li>• Co-authored university research paper on model's forecasting performance and reinforcement simulation on 4 distinct stocks</li></ul>	
<b>initializeChange() E-Learning Non-Profit</b> - <i>Frisco, TX</i>	May 2019 - June 2021
Co-Founder & Instructor – <i>MIT App Inventor, Swift, HTML, CSS, JavaScript</i>	
<ul style="list-style-type: none"><li>• Coordinated 9 workshops, HackCOVID hackathon, and Techspire Accelerator program with the National Tech Administration</li><li>• Hosted 240 hours of mentoring to 150+ students in summer bootcamps, resulting in 25% increase in non-profit event attendance</li></ul>	

## PROJECTS

<b>Gamai</b> – <i>Python, Flask, React.js, HTML, CSS, Tensorflow, Keras, AWS S3 Buckets, CloudFront, Route 53</i>	December 2022
<ul style="list-style-type: none"><li>• Engineered AWS static blog website to showcase reports on AI reinforcement learning agents playing against various famous games</li><li>• Crafted DQN agent to live train against cloned version of 2048 game using OpenAI and Keras and succeeds in less than 500 trials</li><li>• Integrated pathfinding visualizer to study A* search, Djikstra's, BFS, and DFS algorithms under unique heuristics and obstacles</li><li>• Built experimental interface for Q-learning agent to play Snake with adjustable hyperparameters and achieved length 65 in 400 trials</li></ul>	
<b>Web Crawler &amp; Search Engine</b> – <i>Java, JavaFX, JUnit</i>	November 2022
<ul style="list-style-type: none"><li>• Produced a web crawler to traverse parsed HTML pages and devised an efficient web index to store keywords from these websites</li><li>• Created search engine GUI to process phrase and logical operator queries and tested functionality using JUnit and black box testing</li></ul>	
<b>VlogMi: Convergent Forge Startup</b> – <i>React Native, AWS, JavaScript, Figma</i>	September 2022 - November 2022
<ul style="list-style-type: none"><li>• Migrated startup's vlog app to React Native from Android and iOS and outlined AWS database infrastructure to store users' content</li><li>• Refined monetization interface that enables content creators to track daily users and income through data visualization graphs.</li></ul>	
<b>SENPI: Sentiment Analysis API</b> - <i>Scikit-Learn, Python, Flask, React.JS</i>	August 2022
<ul style="list-style-type: none"><li>• Trained and documented sentiment analysis results of various binary classification models with an airline's reviews dataset</li><li>• Utilized Google Colab to preprocess, train, and test sklearn models using model pipeline to quickly perform hyperparameter tuning</li></ul>	

## HONORS

• USA Computing Olympiad Gold Division	Spring 2020
• 1 <sup>st</sup> Place HackSMU State Farm Sponsor Award	Spring 2020
• 2 <sup>nd</sup> place EarthXHack State Farm and Oxy Sponsor Awards	Spring 2019

## SKILLS/ADDITIONAL INFORMATION

**Skills:** Python, Java, AWS, GCP, TensorFlow, Keras, Flask, React, React Native, TypeScript, C, C++, SQL, MongoDB, HTML, CSS  
**Certifications:** AWS Solutions Architect (2022), AWS Machine Learning Specialty (in progress)  
**Interests:** Carolina Panthers, Breaking Bad, God of War, Videogame Design, Kirigami, R&B, Fantasy Sports, Cooking