Justin Chang

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OBJECTIVE

Machine Learning and Web Development professional with a Master of Science in Computer Science, seeking full-time IT roles in Saudi Arabia and the USA. Skilled in building scalable solutions using Python, TensorFlow, PyTorch, and React.js, with a passion for data-driven problem-solving and AI-driven applications. Open to relocation for impactful projects across diverse sectors.

EDUCATION

Master of Science, Computer Science
San José State University – May 2022 | **GPA**: 3.91
Bachelor of Science, Computer Engineering
University of California San Diego – December 2016

SKILLS

Programming Languages: Python, JavaScript, Java, HTML, CSS
Libraries & Tools: TensorFlow, PyTorch, Hugging Face, Pandas, NumPy, Matplotlib, PyTorch, SciPy, Scikit-learn, Keras, SQL, Node.js, React.js, PowerShell, Next.js, Vercel, GitHub, VS Code, Docker.

WORK EXPERIENCE

Software Engineer, Nikaya (July 2023 - Present):

- Developed full-stack applications using React.js and Golang for remote patient monitoring systems.
- Designed and implemented machine learning models for disease classification, achieving over 90% accuracy in early prototypes.
- Collaborated with sales teams to present ML capabilities to clinics and potential partners.

Network Engineer, Auto-Chlor System (July 2018 - April 2019):

- Configured network devices and systems, ensuring optimal performance across 600+ employees.
- Automated Active Directory account creation using PowerShell, reducing workload by 80%.
- Provided technical support, resolving network and hardware issues effectively.

Data Support Associate, Vaco (March 2018 - July 2018):

- Assisted in the migration of IDs in Salesforce database and transferred them to the proper fields within Google's database, Green Tea.
- Assisted members of the project with setting up their computers and taught them techniques to maximum their data entry rate.
- The outcome project was the complete and accurate transfer of data to the new internal CRM.
- Worked on another project involving the transfer of data from pdf files of contracts to spread sheets.

Software Engineer Intern, ServiceNow (June 2014 - October 2014):

- Maintained a javascript client-side software that retrieves data from MySQL.
- Optimized SQL queries and improved the query time of client-side software.
- Fixed UI bugs in HTML and CSS on customer facing software interface.
- Handled client's direct and specific requests for bug fixing and feature implementation.

Student Employee, University of California San Diego (October 2012 – March 2013):

- Prepared ingredients for various stations in the dining hall.
- Cooked food at all stations.
- Served food to customers.
- Washed tabletops and dishes.

PROJECTS

Arabic Dialect Detector (June 2025 – Present):

- Achieved near record breaking Accuracy and F1 score for Arabic dialect classification of 25+ Arabic dialects from the MADAR corpus.
- Implemented preprocessing pipelines for tokenization, normalization, and punctuation removal of Arabic text, enhancing model robustness.
- Trained and fine-tuned BiLSTM and Transformer-based architectures (e.g., AraBERT) for dialect classification, comparing performance metrics.
- Utilized confusion matrices and classification reports to analyze misclassification patterns between similar dialects (e.g., Levantine vs. Gulf).

Community TNR (September 2024 – Present):

- Designed a web application using the Vercel tech stack (Next.js, React.js, Postgres, Typescript, Tailwindcss) to facilitate local communities to trap, neuter, and return stray cats
- Applied Machine Learning techniques to automatically create profiles of stray cats
- Implemented accessibility features, internationalization, and search engine optimization.

Faking Sensor Noise Information (August 2021 - May 2022):

- Developed GAN and classifier models to analyze sensor noise patterns for camera source attribution.
- Applied denoising techniques to enhance model accuracy, achieving high AUC in classification tasks.
- Demonstrated potential vulnerabilities in current classification models, emphasizing cybersecurity implications.

ReLeaf (August 2020 – December 2020):

- Designed and trained a Neural Network to classify plant leaves and their diseases.
- Conducted various experiments with different Neural Network architectures.
- Achieved training accuracy of 99% and a test accuracy of 75% by applying transfer learning with a pretrained model named Inception V3.