Matt Jacobs

Full-Stack Software Engineer

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Skills

<u>Libraries and Frameworks</u> | Express.js, React, Node.js, Mongoose, Numpy, Keras, TensorFlow, OpenCV

Languages | HTML, CSS, JavaScript, Java, Python, C#

Database | SQL, MongoDB

Other | RESTful Routing, JSON, CRUD

Projects

AI Art Generator | Full stack app for the creation and sharing of AI-generated art using arbitrary neural style transfer | https://aiartgenerator.herokuapp.com | React, Flask, PostgreSQL, Tensorflow, Numpy, Python, JavaScript, Cloudinary, HTML, CSS, JavaScript (04/2022)

- Integrated a pretrained neural network from tensorflow hub into a full stack app enabling users to create AI-generated art from a content and style image using arbitrary neural style transfer
- Utilized RESTful routing and full CRUD to enable users to post and share their AI-generated art with others

Social NFT | MERN stack app for the sharing and minting of NFT Artwork | https://social-nft.netlify.app | MongoDB, Node.js, Express.js, Mongoose, React, HTML, CSS, JavaScript, Moralis, Cloudinary, Solidity (03/2022)

- Programmed an Instagram clone centered around the sharing and posting of NFT art
- Deployed a smart contract to the Georli Ethereum testnet capable of minting NFT's
- Stored digital art and associated metadata on IPFS
- Established user authentication with JSON Web Tokens

Joke Collector | MEN stack app for collecting jokes | https://jokes93.herokuapp.com/ MongoDB, Node.js, Express.js, Mongoose, HTML, CSS, JavaScript (03/2022)

- Implemented RESTful routing with express servers and routers to facilitate CRUD operations for the resources "joke" and "comment"
- Rendered server-side dynamic webpages using EJS templates to render the requested resources
- Added persistence by storing resources in a MongoDB database
- Incorporated authorization using Google Oath to authenticate users

Checkers | Responsive Web Game | http://checkersbymattjacobs.surge.sh/ HTML, CSS, JavaScript (02/2022)

- Built an AI with three levels of difficulty using the minimax algorithm with alpha-beta pruning for increased efficiency in searching the decision tree for the optimal move
- Engineered recursive logic to solve for all valid moves a given checkers piece can make at its current position, allowing for players to select a checkers piece and see all of its valid moves
- Implemented a GUI for game initialization of players using HTML, CSS, and JavaScript, enabling human-to-human, human-to-AI, and AI-to-AI game play

Professional Experience

English Teacher | Chungdahm Academy | Daegu, South Korea (08/2018)-(08/2019)

- Managed promotional events that lead to an over 20 percent increase in students at the academy
- Designed and implemented a course curriculum on a team of teachers that led to 10% increase in student retention
- Taught English as a foreign language to over 100 students and was voted teacher of the year at the academy by my students

English Teacher | Ehwa Academy | Changwon, South Korea (08/2017)-(08/2018)

- Engineered the curriculum as lead native teacher ranging from beginner to advanced
- Improved the communicative competency of over 100 students of all ages and levels of competency

English Teacher | Cambly | Fullerton, California (01/2017)-(07/2017)

- Engaged with students in online classes 1-on-1 to over 1,000 different students online
- Developed custom curriculums for regular students to optimize their learning and to better aid them in attaining their goals in learning English

Credit Analyst | Balboa Capital | Irvine, California (04/2016)-(01/2017)

- Evaluated over \$10 million in applications for equipment financing
- Partnered with managers of the company and the sales team to help improve the loan application process

Jr. Business Analyst | Go Capital | Irvine, California (07/2015)-(12/2015)

- Analyzed lease-performance data to determine which equipment leases were profitable/unprofitable
- Consulted with the CFO to update the lease packages offered to reflect the data of past and current lease profitability

Education

Master of Science Computer Science, Currently Enrolled, DePaul

University GPA: 3.77

Bachelor of Science in Managerial Economics, June 2014, University

of California, Davis

GPA: 3.85

Software Engineering Immersive, April 2022, General Assembly