Evan Reilly

Software Engineer

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Profile

Experienced and self-driven professional with over 5 years of experience researching and developing software solutions in an agile environment. Well rounded in both front-end and back-end development with a background in Kubernetes. Strong communicator who is effective at working with cross-functional teams to deliver outcomes.

Education

M.S. COMPUTER SCIENCE | DECEMBER 2021| UNIVERSITY OF WISCONSIN – WHITEWATER

- May 2020 - December 2021

B.S. COMPUTER SCIENCE, ECONOMICS | UNIVERSITY OF WISCONSIN – WHITEWATER

- September 2016 - May 2020
- Graduated *suma cum laude*

Experience

CEO | FITTOSCALE.IO | 01/23—PRESENT

- Built a *SaaS* personal training platform where users can construct workout programs for clients, create templated landing pages, accept payments, and provide workouts directly to trainees.
- Designed/developed *Node.js* API micro-service deployed via AWS EC2 instance integrated with logging, TLS, load balancing.
- Designed/developed databases using *MySQL* and *MongoDB* deployed as micro-services.
- Designed/Developed *React.js* application deployed using an AWS s3 bucket.

SOFTWARE ENGINEER | IBM | 01/22—PRESENT

- Part of IBM Cloud Kubernetes Service (IKS) and Red Hat OpenShift on IBM Cloud (ROKS) team.
- Develop automation, maintain, test, and deliver fixes to *Kubernetes* releases and pipelines.
- Triage and resolve customer support issues for IKS and ROKS clusters.
- Architected and lead development of the back end for the *Business Intelligence in the Metaverse* project which involved designing a *Node.js* API and *MongoDB* database deployed using containers via FireVM**.**
- Developed a containerized *React.js* web client used for uploading datasets to the application to later be viewed in a 3D environment via Oculus or WebGL client.

BACK END DEVELOPER INTERN | IBM | 05/21—08/21

- Reduced developer response time on customer tickets by developing a *Jenkins* job and GitHub bot using *Golang* that auto-responds to customer tickets with detailed analysis of likely problems within customer clusters.

GRADUATE ASSISTANT | UNIVERSITY OF WISCONSIN--WHITEWATER | 09/20—12/21

- Teacher's Assistant and tutor for undergraduate students in the computer science department.
- Held weekly information/recap sessions for database management systems course.
- Research assistant focused on *Explainable Artificial Intelligence* (XAI) to improve trust between human and AI.

SOFTWARE DEVELOPER INTERN | ACUITY INSURANCE | 05/20—08/20

- Improved claims team's productivity by developing multiple search-based applications using a publish-subscribe model with *JavaScript Dojo*, *SQL*, and *REST API* services to replace slow existing processes.

RESEARCH INTERN - DEEP LEARNING | U.S. NAVAL RESEARCH LAB–WASHINGTON D.C. | 05/19 – 08/19

- Developed and experimented with a deep reinforcement learning solution to StarCraft 2, a work on the replication of DeepMind's Alpha Star using Asynchronous Advantage Actor-Critic algorithm in *Python* using *TensorFlow***.**

STUDENT RESEARCHER – ARTIFICIAL INTELLIGENCE | UW–WHITEWATER | 09/19– 05/19

- Evaluated decision-making processes from several domains including Naval Maintenance, Trauma, Ticket to Ride, and Recipes.
- Generated naval maintenance scenarios with 50 trajectories from Standard Operating Procedures to be evaluated using *Inverse Reinforcement Learning* (IRL) to improve Naval maintenance plans in terms of time, cost, and manpower.

STUDENT RESEARCHER – SOFTWARE ENGINEERING | UW–WHITEWATER | 09/18– 05/18

- Lead in development of UWW data-driven alumni web app.
- Designed, developed, and maintained *MySQL* database using *Python* scripts to parse data from spreadsheets and convert into relational database tables.
- Created stored procedures in *SQL* and *Java* methods to access backend using *Git* for version control.
- Implemented front end features using *Java* and *JavaScript* (Java Server Pages).

Projects

FITTOSCALE.IO

- A SaaS personal training platform: fittoscale.io

MASTER'S THESIS

- Explaining Agent Behavior through Intentional Sequences: https://minds.wisconsin.edu/bitstream/handle/1793/82594/Thesis_Reilly_Final_Draft.pdf?sequence=1&isAllowed=y

ECON CAPSTONE THESIS

- Analyzed the relationship between renewable energy consumption and GDP between developing and developed countries using a Fixed Effects model.

URBAN AGGLOMERATION & ECONOMIC GROWTH

- Analyzed the relationship between populations living in large cities and economics growth using Ordinary Least Squares (OLS) model.

MACHINE LEARNING FOR CARDINALITY ESTIMATION

- Compared a decision trees, random forests, and neural networks in their effectiveness in accurately estimating the cardinality of sub-queries for query optimization in database management systems.

HOUSING RENTAL APPLICATION

- Created a housing rental application similar to AirBnB using Chicago housing rentals dataset and deployed using Google Cloud Platform's AppEngine.
- Implemented rental price recommendation system using random forest algorithm for landlords to use when listing their properties.

DISCORD BOT

- Developed a bot to introduce cryptocurrency to discord servers by simulating a blockchain using MongoDB. Users "mine" new blocks daily when they claim their daily crypto; doing so adds a new block to the chain along with all previous transactions since the last daily was claimed.

MINECRAFT ECONOMY PLUGIN

- Plugin for your Minecraft server allowing players to trade resources with one another based on market prices determined via supply and demand within the world.

Technical Skills

API DESIGN
DATA ANALYSIS
DATA CLEANING
WEB SCRAPING
DATABASE DESIGN
DATA SCIENCE
MACHINE LEARNING

Technologies

JAVA
PYTHON
GOLANG
JAVASCRIPT (REACT.JS)
MONGODB
SQL (MYSQL)
BASH/SHELL
GIT
JENKINS
KUBERNETES
TRAVIS
PANDAS
TENSORFLOW
ANSIBLE