Jesse Fentress

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PROFESSIONAL EXPERIENCE

JC Consulting (BlueHalo), *Full Stack Engineer*   Apr 2023 – Oct 2024
- Transformed software projects from initial concept to production-ready, client-facing solutions.
- Developed and maintained Django and React web applications, ensuring functionality and the user experience met project requirements.
- Utilized Postgres for storing structured data, Elasticsearch for implementing high-performance search on large datasets, and Sphinx to enhance search capabilities within SQL-based data stores.
- Created RESTful APIs to enhance data accessibility for clients using Django and Node.
- Designed and deployed a robust distributed task queue system with Celery to manage and scale Elasticsearch ingestion processes.
- Managed AWS EC2, Lambda, and other AWS services for use with a variety of software projects.
- Collaborated directly with company leadership and client teams to effectively develop and deliver software solutions.

Penn State University, *Software Developer*   Aug 2022 – Feb 2023
- Developed a desktop application for Penn State Residence Life and Housing and Food Services with Electron to perform automated dorm assignment based on student priority metrics.
- Worked in an Agile environment that focused on client-developer interactions with the Penn State (RLHFS).

PROJECTS

Termite: Bug Tracking Web App
- Web application built for the management of teams, projects, and their related tickets.
- Implemented using the PERN (Postgres, Express, React, ande Node) stack.

ASL Detection Web App
- Machine learning application used to detect and predict ASL hand gestures.
- Built with Django, TensorFlow, Google MediaPipe, and deployed on Heroku.

Rephrase: Translated Web Messenger
- A real-time chat application that enables two users to communicate in their native languages, seamlessly translating messages for each participant.
- Implemented using Django, Google Translate API, and deployed on Heroku.

Swarm Intelligence Search and Rescue, *Lockheed Martin*
- Search & rescue mission using an ant colony optimization algorithm.
- M5 Stack acted as worker ants and reported findings to a TurtleBot3 "queen" ant.
- Implemented with ROS, Linux, and and an Apache web server.

TECHNICAL PROFICIENCIES

Programming Languages — Python, JavaScript, TypeScript, Java, SQL, HTML

Software Tools — Django, React, Elasticsearch, Node, PostgreSQL, MySQL, jQuery, Bootstrap, Tailwind, AWS EC2, AWS Neptune, AWS RDS, AWS Lambda, Docker, Redis, Celery, MongoDB

EDUCATION

The Pennsylvania State University,   Jan 2021 – May 2023
Bachelors of Science in Computer Science