JOSEPH HODGES

Software Engineer | AI/ML | DevOps | Python

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STRENGTHS

AI / ML Algorithms | Big Data | Data Science | Docker & VM | CI/CD | Pattern Recognition | Data Sets | Software Design | Agile | RHEL | Deep Learning

Fast learner | Persistence | Prioritisation | Problem Solving | Reliable | Communication skills | Seek out Feedback | Teamwork | Goal Oriented

LEARNING

Mobile Dev | Data Engineering | Networking | Computer Vision | Data Mining | Cloud Computing | Generative AI | Edge Computing | Large Language Models | High Performance Computing | Natural Language Processing

LANGUAGES

Proficient:
Python | Bash | Java

Experienced:
Ansible | SQL | C++ | C#

Familiar:
Go | Docker | Ruby | F# | JS/TS

Frameworks:
Flutter | React | .NET

ABOUT ME

Machine Learning Engineer with significant experience in Software Development moving to to the USA on a Work and Travel Visa. I am highly motivated and eager to learn as much as possible about your software practices while sharing some of ours.

EXPERIENCE

Machine Learning Engineer | StayInFront

08 2023 – Now | Auckland, NZ

- Research and Development of new Machine Learning projects from inception to testing and delivery.
- Maintenance and ongoing development in existing products.
- translating business requirements.
- worked with Reinforcement learning as well as more traditional ML algorithms across Computer Vision and more general data driven solutions.
- Key Projects involved Causal inference in Data, Computer Vision & Pattern Recognition in Data

Software Developer | NZX

11 2021 – 07 2023 | Wellington, NZ

- Designed, Implemented and Supported Automated Deployment scripts in python and ansible for applications and frameworks
- Developed CI/CD pipelines with Github Actions to ensure code quality organisation wide.
- Re-architect, Deployment and Maintenance of Tier One Legacy Systems across the organisation and stack.
- Oracle and Postgres Database Migration and deployment
- Assisted in training and upskilling new graduates

Junior Developer | Qontro

02 2021 – 11 2021 | Auckland, NZ

- Hired to redesign their helpdesk (migrating to a freshdesk system), which involved writing an internal API in python as well as CLI to interact with it.
- Through personnel changes I started managing the project and successfully saw this it through to handover.
- Briefed new project managers on progress, as well as giving regular updates to the wider company and CEO.
- Wrote Python scripts to Interface with freshdesk Enterprise software and automate calls to their RESTful API.
- Gained familiarity with Agile methodologies, Jira, and Confluence

EDUCATION

BE (Hons) Software Engineering | Victoria University of Wellington

2019 – 2023 | Wellington, NZ

- First Class Honours
- Specialising in AI/ML

PROJECTS

Genetic Algorithms for Community Detection in Social Networks | | |

- Investigated existing Community detection algorithms, and identified issues
- Devloped and Implemented a new algorithm using GA utilizing Edien Vector centrality and local search to accurately and efficiently identify communities in social networks
- Tested across large datasets and published results

Exploratory Data Analysis and Manipulation | | |

- Business and Data Understanding with Seaborn
- Data Science
- ML model Design and Implementation with Scikit-Learn
- Model Evaluation and Improvement

Image Classification and Pattern Recognition using CNN |

- Data Analysis and Augmentation with PyTorch
- Hyper Parameter Tuning
- Building Deep Learning Algorithms with Kieras and TensorFlow
- Transfer and Ensemble Learning
- Evaluation and Reporting

Evolutionary Algorithms for Optimization, Computer Vision, and Machine Learning | | |

- Cooperative Co-evolution Genetic Programming
- Estimation of Distribution Algorithm
- Evolution Strategies for Training Neural Networks
- Evolutionary Programming and Differential Evolution Algorithms
- Genetic Programming for Image Classification

Evolutionary Computing for Optimization Problems | | |

- used GA to solve a basic Knapsack problem and feature selection
- used GP with symbolic regression to solve the Rosenbrock and Griewank Problems
- Used Particle Swarm Optimisation and NSGA-II for feature selection

Checkout portfolio linked at the top for more info

OTHER EXPERIENCE

ECS Outreach programme | Victoria University of Wellington

03 2020 – 11 2021 | Wellington, NZ

- Mentorship of first and second year Computer Science/Software Engineering Students
- Represented the Engineering faculty at events around Wellington
- Ran lunchtime code club at local primary & intermediate school.