JOEL CLARKE

Email: joel@joelclarke.co.uk
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GitHub: github.com/DarthEmpty

Software Engineer

A Full Stack Software Engineer with a strong basis in Deep Learning and Web Development.
Experienced in statistical experimentation, data visualisation, providing IT consultation and contributing to Open-Source Projects.

Skills

Languages: Python 3, Typescript, HTML, CSS, SQL

Deep Learning | Full Stack Development
Version Control | Automation | Leadership
Communication | Adaptability

Education

1st Class BSc, Computer Science
Royal Holloway, *2018*

Key Modules: Intelligent Agents, Machine Learning, Data Visualisation and Exploratory Analysis

Experience

IT Technician and Registered Authority Agent

Ashford and St Peter's Hospitals (NHS), *July 2023 - Present*

- Provide IT consulting and solutions to professionals with varying IT experience across NHS trusts
- Govern professionals' access to sensitive data using Active Directory and Smart Card Management
- Troubleshoot engineering issues beyond my role
- Automate internal processes using Power Automate and VBA - improving efficiency and reliability

PhD Researcher and Teaching Assistant

Royal Holloway, *2018 - 2022*

- Lead research concerning Voice Assistant tolerance to Disfluent Speech
- Proposed Disfluent Auto-Completion system to support impaired speech
- Classified voice data using **Siamese Network** model built in **PyTorch** - 90% accuracy in testing.
- Planned comparison between performance of **deep learning** methodologies in classification task
- Developed web app using **VueJS**, **FeathersJS** and **SQL** to gather data
- Augmented fluent voice data using **Python 3** to create synthetic disfluent dataset
- Mentored undergraduates by supervising labs for Intelligent Agents and Robotics

Research Assistant

Royal Holloway, *Summer 2017*

- Contributed to postgraduate research concerning Assigning Symbols to Stripped Binary files
- Matched symbols learnt with machine learning to functions based on signature with Python 3

Royal Holloway, *Summer 2016*

- Contributed to research concerning Android Apps with Insecure SSL Certificates
- Identified faults in apps using Python 3
- Generated high level summary of data collected

Projects

Ivy

github.com/unifyai/ivy

- Contributed to Open-source, Deep Learning framework focused on unifying other like frameworks
- Implemented 'convolve' method using NumPy
- Generated tests using Hypothesis

joelclarke.co.uk

github.com/DarthEmpty/joelclarkev2

- Designed and built website to showcase skills and character
- Taught myself NextJS, Typescript, and TailwindCSS - skills used in site's creation