



Daniel HIRST

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SUMMARY

Resourceful and driven Python developer who is passionate about GIS and remote sensing applications. Significant experience developing both prototypes and production code rapidly in an agile environment. A reliable team member who has collaborated with and managed teams to establish and grow organisations from inception. Strong knowledge of geospatial libraries and computer vision techniques to develop solutions on the cutting edge of remote sensing.

SKILLS

PROGRAMMING LANGUAGES	Expert: Python Experienced: SQL Javascript HTML/CSS Familiar: Bash C Java MatLab
SOFTWARE DEVELOPMENT	AWS Azure Machine Learning Linux GIT Docker Agile Methodology
FRAMEWORKS & LIBRARIES	Numpy Pandas Flask Scipy PyTorch xarray conda Keras Svelte Jupyter Matplotlib Boto Open-CV Scikit-image Pillow Streamlit RAPIDS
REMOTE SENSING	GDAL EO-Learn Google Earth Engine Planetary Computer QGIS Rasterio GeoPandas Shapely ArcGIS Cesium 3D Modelling Satellite Video SAR pyproj cartopy Folium contextily stackstac

EXPERIENCE

ORDNANCE SURVEY

2021-Present / London, UK

DATA SCIENTIST

- Worked in a highly collaborative and agile environment with a small team and tight deadlines to develop prototypes for internal and external stakeholders
- Led teams as scrum master, technical lead, and project manager to create products, events, and internal processes
- Developed business models and proof-of-concepts for new products and championed them from inception to development
- Built software for a large number of industries and use-cases including open-source software development, 3D modelling, sustainability, and land management

EARTH-I LTD.

2020-2021 / Guildford, UK

DEVELOPER

- Designed, constructed, and tested large scale Python workflows for the finance and mining industries
- Created resilient cloud-based infrastructures using AWS
- Advanced from junior developer to chief technical architect of the company's flagship product in 6 months
- Used deep learning and computer vision to analyse satellite imagery and extract insights
- Engineered products using visible, infrared, and SAR imagery

CHAPEL THRILL ESCAPES

2018-2020 / Chapel Hill, NC

CO-FOUNDER AND TREASURER

- Founded an escape room company focused on creativity and sustainable employment
- Constructed the escape room, designed puzzles, devised the marketing strategy and developed the backend infrastructure to operate the business
- Pitched and acquired over \$15,000 in start-up capital

SEDS USA

2018-2019 / Remote

CHAIR

- Elected leader of the world's largest student-run space organisation, with over 5,000 students in 85 chapters across the USA
- Led a team of 30 to create scholarships, grants, competitions and support infrastructure
- Managed a budget of \$100,000 and formulated reinvestment of our \$300,000 endowment
- Organised a conference with over 430 attendees from 56 universities

SATELLITE APPLICATIONS CATAPULT

2019-Summer / Harwell, UK

SOFTWARE ENGINEERING INTERN

- Built Convolutional Neural Networks to identify illegal mining activity from satellite imagery
- Designed and constructed software to extract, transform, and load training datasets
- Used GDAL, Rasterio, and ESA SNAP to transform and subset Sentinel-2 satellite tiles

EDUCATION

UNIVERSITY OF NORTH CAROLINA

2016-2020 / Chapel Hill, NC

B.Sc. IN COMPUTER SCIENCE AND ASTROPHYSICS

- **GPA:** 3.79
- Completed courses in Geospatial Programming, Quantum Computing, Computer Vision, Web Development, Computer Architecture, Linear Algebra, Statistics, and Observational Astrophysics

BRENTWOOD SCHOOL

2009-2016 / Brentwood, UK

- **A-Levels:** Further Mathematics (A*), Mathematics (A*), Physics (A), Latin (A*)

OTHER ACHIEVEMENTS

- AWS Certified Solutions Architect - Associate (2021)
- Azure Certified Data Scientist (2022)
- Professional Scrum Master Level 1 (2022)
- Strategyzer Online Academy (2022)
- The Mars Generation 24 Under-24 Leaders and Innovators in STEAM and Space Winner (2020)