JOHN SOLLY

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As a Lead Developer at UMD, I architect advanced solutions that cater to our clients' needs. My expertise includes developing custom web and mobile applications using geospatial data and plugins for desktop mapping software. I am proficient in utilizing both open-source and proprietary GIS stacks, and have a solid understanding of the GIS lifecycle, from data acquisition and analysis to visualization and deployment. I aim to deliver elegant, high-performing geospatial solutions surpassing expectations.

PROFESSIONAL EXPERIENCE

UNIVERSITY OF MARYLAND   *College Park, MD*
LEAD GEOSPATIAL DEVELOPER   Sept 2022 to Present

At the EASIER data initiative, I develop infrastructure for efficiently, accessibly, and sustainably onloading, analyzing, and extracting large amounts of geospatial data into blockchain-managed, decentralized storage systems such as Filecoin and IPFS.

- Construct data pipelines for loading, analyzing, and retrieving cloud-optimized, geospatial data from (Filecoin/IPFS) using Shell, RSync, Singularity, Lotus, and Boost.
- Develop Dockerized RESTful STAC API, TypeScript Client, and QGIS plugin for geospatial data upload and retrieval. E2E applications are based on Landsat 9 and GEDI but are generalizable to any geographic dataset.
- Write tutorial Python Jupyter notebooks to demonstrate functionality. Maps and geospatial analysis with Geopandas, GDAL, and Rasterio. Inline maps and visualizations with Folium and Matplotlib.
- Build dynamic cache and retrieval methods for optimized hot/cold storage.

YELLOWFIN BUSINESS INTELLIGENCE   *Boise, ID*
INTEGRATION CONSULTANT   May 2021 to February 2022

Empower developers as a trusted advisor. Offer technical leadership and ownership in post-sales consulting engagements with tier-1 customers, ensuring a successful customer experience.

- Design, develop and integrate innovative data solutions according to stakeholder requirements.
- Aid in complex deployments and act as an escalation point for L3 support tickets.
- Thought leader on best practices in solution and integration development. Prove processes and patterns to be leveraged by Yellowfin consultants, customers, and partners.

ENVIRONMENTAL SYSTEMS RESEARCH INSTITUTE | PRODUCT ENGINEER (II)   May 2017 to May 2021
CENTER FOR LOCATION SCIENCE | RESEARCH AND TEACHING ASSISTANT   Sept 2015 to May 2017
U.C.S.B COLLEGE OF ENGINEERING | TIER I HELP DESK   Oct 2014 to June 2015

PROJECTS

- **Blogthedata.com (2021 - Present)** Author blogsite using a Django (Python) backend. Used Jinja for templates, bootstrap for UI. Complete CI-CD workflow using QA and Dev environments with all code committed to source control and deployed to a Linode cloud server.
- **UI Automation of ArcGIS Dashboards (2021)** Create UI functional tests using Python and Selenium. Test harness scheduled through a containerized Jenkins deployment. Test results reported to multiple sources, inducing email, defect tracking tool, and MS Teams Channel. Tests uncovered over 10 high priority defects within a 6-month period.

EDUCATION

OPEN SOURCE SOCIETY UNIVERSITY (OSSU)   github.com/ossu/computer-science
COMPUTER SCIENCE (B.S. Equivalent)   Graduating Spring 2027

GEORGE MASON UNIVERSITY, GPA 3.93   *Fairfax, VA*
M.S. GEOINFORMATICS AND GEOSPATIAL INTELLIGENCE   May 2017

UNIVERSITY OF CALIFORNIA, SANTA BARBARA, GPA 3.85   *Santa Barbara, CA*
B.A. GEOGRAPHY (GIS & REMOTE SENSING EMPHASIS)   May 2015