

LALITHA MUTHU SUBRAMANIAN

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📄 <https://github.com/lmuthusu>

EXPERIENCE

GIS GRAD ASSISTANT

New Mexico Water Resources Research Institute

📅 Sept 2019 – Present

📍 Las Cruces, NM, USA

- Create maps, web-maps, assist with GIS research
- Analyzing water data using Python, Geo-pandas
- Accuracy Assessment of National Land Cover and Crop Data Layer for NM - To validate if data-sets are accurate for agricultural, water-use estimates

RESEARCH ASSISTANT

NMSU Computer Science

📅 Aug 2018 – Sept 2019

📍 Las Cruces, NM, USA

- Automated proofs for Attribute Based Signatures. Developed Virtual Payment network to enable privacy-enhanced off-chain transactions

SOFTWARE ENGINEER- Flight Control Systems

Rockwell Collins India Pvt Ltd

📅 Aug 2014 – May 2017

📍 Hyderabad, India

- Conduct technical planning, system integration, verification and validation, through various stages of the software development life cycle
- Deconstruct Customer specifications and system level requirements into sub-system requirements and test software through test cases, analytical procedures and test scripts.
- Build lean tools (using python) to continually improve process efficiency
- Primary technical contact with Customer concerning PFCC requirements and issues.
- Supporting SOI 3 Audit with Customer and Certification Authorities

SYSTEMS ENGINEER

TATA Consultancy Services Pvt Ltd

📅 Aug 2012 – July 2013

📍 Chennai, India

Work directly with developers to solve technical problems. Participate in test and provide feedback to development teams

TECHNICAL/GEOSPATIAL SKILLS

Python, Spatial analysis, GDAL, Shapely

HTML/CSS, JS, Leaflet, Mapbox GL

JAVA, PostgreSQL, Remote Sensing



SOFTWARE SKILLS

- QGIS, ArcMap, ArcGIS Desktop/Pro, ArcPy
- MATLAB, DOORS, ENVI, JIRA, GEE, Subversion
- Linux OS (Fedora/Ubuntu)

EDUCATION

Master of Science (Applied Geography)

New Mexico State University

📅 May 2020

📍 Las Cruces, NM

- 3.9/4

Master of Science (Communications Engineering)

Nanyang Technological University

📅 2014

📍 Singapore

- 3.2/5

Bachelor of Technology (Hons) (Electronics Communications)

Sastra University

📅 2012

📍 Thanjavur, India

- 8.12/10

PROJECTS

Centre for Housing and Community Studies

- Developed a Web-based-tool called Opportunity Finder (Land Evaluation Tool) for affordable housing in Guilford county
- Created the tool using HTML, CSS, JS, ESRI web API libraries

LandMet - Tool for landscape metrics

- Creating a tool for QGIS for calculating landscape metrics
- Using Python and libraries such as NumPy, Scikit and GDAL for raster image processing

PRESENTATIONS

- "Attribute-based Signatures: The Case for Automation", SECRIPT, 2018
- "Using Open Street Maps for Affordable Housing", SOTMUS, 2019
- "Exploring Automation in Proofs of Attribute-based Encryption in the Standard Model", Privacy, Security and Trust, 2019

VOLUNTEER/MEMBER

Active contributor of Open Street Maps

Volunteered with projects in HOTOSM

Member of American Association of Geographers