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| **SERHII KUSHNIRENKO**  **Professional Engineer**  **Email:**  serhio.kushnirenko@gmail.com  **Mobile phone:**  +1(813) 869-0332  **Address:**  7923 Camden Woods Dr,  Tampa, FL 33619  **Skills:**  CSS3 (1 year),  3-GIS (3 years),  Abaqus (1 year),  HTML5 (1 year),  ArcGIS (6 years),  Civil3D (2 years),  Hec-Ras (1 year),  MAP3D (6 years),  JavaScript (1 year),  TypeScript (1 year),  MS Office (11 years),  Google Earth (6 years),  NDS (Lumen) (3 years),  Robot Autodesk (1 year),  Microsoft Project (1 year),  Revit Architecture (1 year),  Wolfram Mathematica (1 year). | **RESUME**  **Engineering Associates LLC, Tampa, FL**  10/2021 - present  **Position:** OSP Engineer II, PE  **Responsibilities:**  I analyzed, designed, and optimized flexnap fiber network, drops, and feeder cable on Lumen project using Corning software and Autodesk Map3D. Modeled and revised existing and proposed project plans in Map3D using record drawings and field verification, created finish bore profiles drawings. Designed and specified fiber optic splitters and fiber distribution hubs using NDS. Performed bill of materials calculations. Designed, analyzed, and evaluated aerial fiber attachments required per TIA-568, NEC and Florida Electrical Code standards, created OSP contracts in Fireworks and Bidmaster. Analyzed existing fiber or copper networks on various projects to calculate and design upgraded networks considering MDU, SBU or SFU data as well as Florida counties regulatory compliance. Designed and assigned distribution fiber counts using Corning software. Reviewed asbuilt drawings and submittals, performed value engineering analysis and constructability reviews, created permit drawings within large fiber networks in Map3D, created Work Plans, highlighting work procedures, potential safety risks, materials needed for performing work, and schedule for specific work tasks, provided detailed reports to the supervisor, documented design decisions, and performed commissioning verification. Discussed design requirements during regular engineering meetings, coordinated with internal and external disciplines to ensure a complete design.  **Representative Projects:**  Lumen FTTH, FTTB project, FL I designed Passive Optical Network to connect a large number of end users (single dwelling units, multi dwelling units, large buildings and businesses) to an Access Node in Florida counties. I developed construction prints and installation drawings for underground and aerial fiber routes, created splicing schemes for fiber terminals and flexnap or bulk cables. I engineered a path for drop cables to connect the user end-service points, assigned fibers for each Optical Network Terminal or Optical Network Unit, located at user’s premises, developed vertical changes/alterations for make-ready poles. I prepared the bill of materials by creating OSP contracts in Lumen Fireworks and Bidmaster systems. I designed new fiber network in Lumen Network Designed System and was involved in some ISP projects related to splicing of splitters and feeder fibers in Optical Line Termination Points at the CO and Fiber Distribution Hubs by using GPON and XGS-PON standards, calculated link loss budget, also was involved in establishing right-of-way needs for buried cables and handholes installation within private property. During the project, I submitted detailed reports to the engineering manager and Lumen consultant engineer, confirming adherence to the design requirements. I worked to ensure that the design provided fell within the budget, while meeting the needs of the client.  **Tesinc LLC, Tampa, FL**  10/2018 – 10/2021  **Position:** OSP Engineer I  **Responsibilities:**  I researched, designed and evaluated various fiber underground or aerial route options associated with Verizon One BAU project. Analyzed, and evaluated fielding data used in determining best fiber optic aerial or buried path required per NEC standards by avoiding RR aerial crossings or a bore in a rocky soil, reviewed labor, equipment, and material costs, designed finish railroad, interstate and street bore profiles, assisted OSP technicians in illustration of poles and creation of base mapping drawings including PUE and ROW in Map3D. Resolved and analyzed onsite conflicts between design plans and onsite conditions. I ensured safety, environmental codes, and standards were adhered to at all times, engineered and QC OSP construction drawings in Map3D and in electronic 3GIS format, developed wiring splice and schemes diagrams, performed risk analyses to determine strategies for improving project outcomes. Assigned and modeled fiber counts for backhauls, fronthauls, 5G and ODN terminals, designed fiber count assignments in 3-GIS/ArcGis, developed aerial and underground route in GoogleEarth by creating KMZ files, analyzed and submitted height of attachments of LGE / Duke / CCREMC and IPL poles following ground clearance minimums over driveways, roads, state roads, railroads as required by the local authority and NESC standards documents.  **Representative Projects:**  VERIZON One Fiber project, KY & IN [10.15.2018 – 12.15.2019] I did cost analysis to find out what option is better for future design: aerial or buried, gathered information, created traffic control plan for future construction phase and prepared drawings of the existing facilities (buried gas, electric, sewage), developed the construction drawings to include fiber splicing details, grounding, and protection equipment as well as telco specifications. I engineered the fiber backhaul to connect the core network and the Radio Access Network of the mobile network and fronthaul telco route, assigned fiber counts to backhaul and fronthaul cables, prepared bill of materials, designed transmedia in GIS, calculated aerial fiber cable sag and pole loading, reviewed asbuilt drawings, designed make ready pole HOA, made sure design follows TIA-568 Commercial Building Telecommunications Cabling Standard. Designed detailed construction prints of fiber-optic cable running in the new duct attached to the bridge and made sure it is protected against expansion and contraction of a bridge based on AASHTO guidelines in KY.  My designs and documentations were submitted to the engineering supervisor who provided periodic feedback and final approval for completion and closeout of the VERIZON ONE project.  VERIZON ODN project, KY & IN [12.16.2019 – 07.12.2021] I designed Optical Distribution Network to connect all-optical passive segments (small and large businesses and MDUs) to the OLT in various counties in Kentucky and Indiana, engineered fiber drops from the subscriber to the Access Level Fiber, prepared bill of materials, created fiber butt and mid-sheat splice schematics, developed fiber allocation spreadsheet, designed routes and splices in 3GIS. After the completion of each phase of work, I commissioned and witnessed the implementation of the new system with the guidance of my supervisor.  VERIZON 5G project, KY & IN [07.13.2020 – 10.31.2021] I designed the outdoor 5G access points and the most economically feasible and efficiently constructed route from feeder point to the antennas located in Indianapolis and Louisville by assigning fiber count to each 5G cell, developing construction prints and general notes what included existing utilities plus new fiber route, prepared bill of materials, designed fiber routes, antennas and splices in 3GIS, created fiber splice schematics, reviewed asbuilt drawings. Discussed design requirements during regular engineering meetings.  **Education:**  **Wroclaw University of Science and Technology, Wroclaw, Poland, MSc** 2015-2017  **Major:** Civil Engineering  **Thesis topic:** Steel Hall Buildings with 30 meters Steel Truss Roof-Rafters  **National University “Yuri Kondratyuk Poltava Polytechnic”**  **Poltava, Ukraine, BSc** 2010-2014  **Major:** Construction  **Certificates:**   * Professional Engineer Missouri License: “2024021822” * Engineer Intern Florida * OSHA 30 Hour Construction Industry Outreach * Lean Six Sigma Green Belt (The Council for Six Sigma Certification)   **Interests:**   * Web Development, OSP Apps: skpeportfolio.vercel.app |