JUSTIN CLARK
FULL STACK SOFTWARE ENGINEER

Ann Arbor, MI
jclarksummit@gmail.com
+1 (734) 877 2264 | LinkedIn | Github

Technical Skills

Languages: Javascript, Python, SQL, HTML, CSS, Typescript
Technologies: React, Flask, Node, Express, AWS, Vite.js, Electron.js, TailwindCSS, Jinja, Django, PostgreSQL, ArcGIS, Ubuntu/Linux, Git, Pandas, Selenium, Nextjs, Prisma, Serverless
Testing: Jest, React Testing Library, Coverage.py, Jasmine, unittest, PyTest

Software Engineering Experience

Rootwise, LLC | Software Engineer (Contract)   *Jan 2024 – Present*
- Led development of web scraping platform to gather data from auction houses with Python & Selenium.
- Engineered a robust concurrent scraping system that utilized multithreading and pools to reduce runtime.
- Deployed the application in a serverless environment that leveraged AWS Lambda and Serverless.
- Utilized memory profiling tools to manage memory usage and runtime.

ETANA Syria | Technical Consultant (Contract)   *Nov 2023 – Present*
- Used Python and Pandas to automate workflows for ETANA researchers and analyze large datasets gathered by field research teams.
- Developed a cross-platform desktop app for ETANA's information management team using React, Electron.js, Python and Node.js.
- Contribute to ETANA's Syria-focused research by leveraging OSINT tools and frameworks.

Bellingcat | Volunteer Open Source Contributor   *Sept 2023 – Present*
- Led design and development of "Wayback Google Analytics", an open source intelligence (OSINT) tool.
- Collaborated with Bellingcat software engineer to tailor the framework for investigators, utilizing a Github-based workflow to track issues, manage versions and review code changes with pull requests.
- Developed documentation and Github actions to automate testing and publishing to PyPI.
- Wrote and published an article exploring using the tool to uncover disinformation networks online.

Rithm | Software Engineer Intern   *May 2023 – June 2023*
- Built new features for and debugged the Student Information System, a sophisticated live-production Django codebase with >80,000 lines of code.
- Built factories and wrote unit and integration tests maintaining >98% coverage throughout development.
- Collaborated using agile methodologies to deliver new features by participating in daily standups, story-pointing tickets and completing week-long sprints.

Technical Projects

Wayback Google Analytics | Python, Pandas, Asyncio   Github | PyPI
- Designed and built a Python framework for collecting current and historic Google Analytics codes from websites for use in OSINT investigations.
- Utilizes BeautifulSoup4 for web scraping as well as archive.org's CDX API to gather historic analytics data.
- Incorporated asyncio to handle async API calls, improving program runtime by nearly 10x.

Syria Daily Brief | React, Flask, PostgreSQL   Backend | Frontend
- Designed and built a full stack Syria-focused media monitoring app using Flask, React and PostgreSQL.
- Developed a Flask API that allows a user to scrape data from an array of Arabic-language Syrian media outlets up to a desired date and time, storing extracted data in an editable PostgreSQL database.
- Utilized Python unittest and Coverage.py to maintain >97% test coverage of backend functionality.
- Incorporated OpenAI and ArgosTranslate APIs to provide the user with machine translations and concise English-language summaries of Arabic media reports.
- Built a responsive frontend UI using React and TailwindCSS to view, edit and organize extracted data.

Professional Experience

ETANA Syria | Senior Analyst   *Jul 2019 – Mar 2023*
Amman, Jordan
- Led research and design teams in producing comprehensive reports and in-depth studies for policy makers, covering security, economic, political, and humanitarian aspects across Syria.

- Delivered concise briefings on developments in Syria to government officials from the US and Europe, ensuring information accessibility for both experts and non-experts.
- Translated and synthesized Arabic-language datasets into English-language studies, contributing to reports read by US diplomatic and security personnel.
- Leveraged tools such as ArcGIS and Leaflet.js to map large datasets into informative visualizations.
- Initiated and developed new reporting projects aligned with shifting political and military trends in Syria, resulting in regular key insights available on a weekly, monthly, and quarterly basis.

Syria Direct | Senior Reporter   *Oct 2016 – May 2019*
Amman, Jordan
- Conducted and facilitated editorial meetings in Arabic, guiding junior reporters and trainees in the development and design of reports and articles.
- Mentored team of more than 12 junior reporters and trainees, delivering training sessions in Arabic on open-source research, geolocation, data collection, professional development, and resume building for Syrian and international staff.
- Researched and authored impactful articles and investigative reports on Syria, leveraging diverse networks of sources within Syria and abroad.
- Provided comprehensive briefings on key trends to diplomatic and humanitarian professionals.

AlBawaba | Bridge Editor/Content Writer   *Feb 2016 – Oct 2016*
Amman, Jordan
- Pitched, researched and wrote articles and photo galleries for publication on AlBawaba English.
- Monitored Arabic-language news and social media trends and developed English-language content relevant to AlBawaba's foreign readership.
- Translated Arabic content and news into English.

Health Point Foundation | Arabic Interpreter   *Dec 2015 – Jan 2016*
Mytilini, Greece
- Interpreted between Arabic and English for medical professionals treating Syrian and Iraqi refugees on the Greek island of Lesvos.

Education
Rithm School | San Francisco, CA   *Feb 2023 – Jun 2023*
16-week full stack software development intensive with a focus on React, Express, Flask and databases.

Qasid Institute | Amman, Jordan   *Sep 2015 – Mar 2016*
Courses: Modern Standard Arabic, Media Arabic, Levantine Arabic

Bethlehem University | Palestinian Territories   *Jun 2015 – Jul 2015*
Courses: Modern Standard Arabic, Media Arabic, Levantine Arabic

Western Michigan University | Kalamazoo, MI   *Sep 2013 – Jun 2015*
Degree: Arabic Language (B.A.)

Selected Publications
'Using the Wayback Machine and Google Analytics to Uncover Disinformation Networks' (2024, January 9). Bellingcat. Retrieved from bellingcat.org

'Divide and Conquer: The Growing Hezbollah Threat to the Druze' (2019, October 21). Middle East Institute. Retrieved from mei.edu

Clark, J., & Nassar, A. (2019, March 18). 'Is it safe to go home?' Amid promises of amnesty in Syria, defectors abroad weigh their options. Syria Direct. Retrieved from syriadirect.org

'Despair and Decay: East Ghouta After 18 Months of Renewed Regime Rule' (2019, November 14). Retrieved from mei.edu

Languages
English (native), Modern Standard Arabic (ACTFL Superior), Levantine Arabic (ACTFL Superior)