Michael Vandi

Software Engineer

August 14th, 2022

mvandi.com

GitHub Profile

https://github.com/MichaelVandi/

LinkedIn Profile

https://www.linkedin.com/in/michael-vandi/

Contact Information

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mikevee2013@gmail.com

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+1 (301) 851 9470

Skills

Programming:
Java, Rust, Python, JavaScript, C++, C, Ruby, React, Node.js, Go, C#, Bash, JQuery, Ajax, PHP, VB.net

UI Development:
HTML, CSS, Bootstrap, Jinja

Databases:
SQL, MongoDB, GraphQL, MySQL, PostgreSQL, ORMs

Cloud Computing:
AWS, Microsoft Azure, Google Cloud Platform, Firebase

Publications

- A Cloud Computing Infrastructure to Support xEMUs and Future EVAs (2022)
- An Augmented Reality Guidance and Operations System to Support the Artemis Program and Future EVAs (2021)
- Understanding the Importance of Data Documentation (2020)

Honors and Awards

- 1st Place: Maryland COVID-19 Hackathon
- National Society of Leadership and Success (2019)
- Laurence Short Award Winner (2019-2020)
- Featherstone Scholarship Award Winner (2019, 2020)

Experience

Amazon Web Services – Software Engineer | *Seattle, WA* May 2021 - Feb 2022

- Solved a critical service-wide **auto scaling infrastructure issue** to support Black Friday traffic which led to the first Black Friday in **3 years with zero outages** within my org.
- Created a **one-click automated sandbox** setup system for native AWS development with **CI/CD pipelines** which reduced sandbox setup time by over 50%.

NASA Suits – Lead Software Engineer | *Baltimore, MD* Oct 2019 - May 2021

- Led a team of 15 engineers to create an augmented reality **cloud infrastructure** system to support astronauts and extravehicular activities for NASA's Artemis mission.
- Implemented a **latency-layered architecture** on Magic Leap AR which led to a **15.8% energy optimization**.

National Science Foundation – GIS Intern | *Baltimore, MD* Jun 2020 - Dec 2020

- Wrote Python scripts to model **data infrastructures** for **geospatial data** indicators on transportation, housing and COVID-19 statistics in Baltimore City.
- Successfully maintained a repository of over 20 COVID-19 testing sites in Baltimore city on OpenStreetMap.

Directorate of Science – Software Engineer Intern | *Sierra Leone* May 2019 - July 2019

- Worked with a team of 8 engineers to develop **data** visualization platforms that help government agencies make data-driven decisions.
- Wrote a machine learning algorithm to classify photos of 10,747 school toilets.

Education

Carnegie Mellon University | *Pittsburgh, PA* Aug 2021 - Present

Master of Science (MS), Software Engineering

- Specialization: Building end-to-end large-scale distributed **software infrastructures.**
- Built complex decision analysis frameworks to tackle a variety of software engineering decision making problems including architecture, product, and process decisions.

University of Baltimore | *Baltimore, MD* Aug 2018 - Dec 2020

Bachelor of Science (Hons), Applied Computer Science – 3.95 GPA

- First Place Inspired Discoveries Research Winner 2020.
- Outstanding Student Award, 2020 & High Impact Honors Winner 2020.
- **5x Dean's List** High-Honors, Member of Helen P. Denit Honor Society.
- Undergraduate Researcher (Turner research award recipient 2019, 2020).

Harvard University | *Cambridge, MA* Jun 2019 - Aug 2019

Professional Certificate, Web Programming with Python and JavaScript

- Designing and implementing **web apps** with Python, JavaScript, and SQL using frameworks like Django, Flask, and Bootstrap.
- Database design, **scalability**, and security, user experience, creating and using **API's** and leveraging **cloud services** like Heroku, GitHub, and Travis **CI/CD.**

Projects

COVID-19 Anonymous Contact Tracing | *React Native, React.js, Firebase, SQL*
iOS and Android app that anonymously traces positive COVID-19 contacts **via Bluetooth** using the **DP-3T algorithm**. GIS mapping and stats for **1,329 zip codes** in Maryland. (Won 1st Place in Maryland COVID-19 hackathon) https://ciat-app.web.app

Rate My NFT | *Java, Node.js, React.js, Google Cloud, Elastic Search*
The world's first platform to rate, review and discover digital collectibles. Built in 1 week and has acquired over 2,000 users. https://ratemynft.app/

evalu8 | *Python, JavaScript, SQL, Jinja 2, HTML, CSS*, *Django, Heroku*
Web app that recommends 53,000 restaurants around the United States to customers based on reviews, directions and **geospatial** data. https://www.evalu8.xyz

Flack | *Flask, Python, JavaScript, Socket.io, HTML, CSS, Jinja*
Built a clone of Slack in 2 days using **socket.io** to broadcast messages to clients on the same network with **no internet connection** required. See source code