Natalie Wilkinson

Software Engineer

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EDUCATION

Georgia Institute of Technology Aug. 2016 - May 2020
GPA: 3.72
Bachelor of Science in Chemistry
Honors Program • Dean's List • Faculty Honors • Georgia Tech Chemistry Outstanding Student Scholarship

EMPLOYMENT

EnergySage
Software Engineer, Boston, MA June 2020 - Present
- Developed consumer facing features using Python on Django that maintain and improve the EnergySage marketplace.
- Built new API's using Django REST framework that employ the Django ORM to interact with mySQL databases.
- Built a single page app for consumer onboarding that encourages consumer engagement using Vue and Bootstrap.
- Utilized Pytest and Jest testing frameworks to unit test backend and frontend features.

Software Engineering Intern, Boston, MA Sept. 2019 - Dec. 2019
- Implemented backend Python logic to create solar panel cost figures from user data.
- Programmed new notifications to alert users with specific permissions about new content on the website.
- Implemented relationships between new product endorsements and solar companies.
- Developed, tested and implemented new frontend and backend features using Python on Django and Pytest.

UPS
Software Engineering Intern, Alpharetta, GA May 2019 - Aug. 2019
- Developed Python tool for the supply chain division to automate customer issue tracking and data management of those issues.
- Integrated the ticket management software with this tool in order to automate the process of creating agile stories for the development of new features which in turn helped reduce toilsome work for internal stakeholders.

Amgen Scholars Program, UC Berkeley College of Chemistry
Research Assistant under the direction of John Hartwig, Berkeley, CA May 2018 - Aug. 2018
- Investigated an enantioselective iridium-catalyzed allylic substitution reaction of fluorinated electrophiles that yield synthetically-versatile chiral fluorinated building blocks.

Georgia Tech Department of Chemistry and Biochemistry
Research Assistant under the direction of Jake Soper, Atlanta, GA May 2016 - Dec. 2018
- Investigating direct fluorination reactions of organozirconocene reagents to produce vinyl fluorides.
- Investigating the optimal conditions for the reactions of silyl enol ethers with a radical CF3 source in the presence of a Co(II) catalyst to produce α-trifluoromethylated ketones.

Georgia Tech Chemistry Department
Lab and Recitation Teaching Assistant Aug. 2017 - Dec. 2018
Freshman Chemistry Program CHEM 1310 TA
Chemistry and Biochemistry CHEM 2214 TA
- Facilitated weekly laboratory and recitation classes for first and second year chemistry students.
- Guided weekly pre-lab discussions to introduce students to laboratory class topics and led collaborative (group work oriented) environments for recitation classes and office hours.

PROJECTS

My Angel Sight Feb. 2019
Technology that helps drivers become aware of their distracted driving and incentives attentive driving. The program tracks a drivers movements and determine if they are a distracted or not. Face tracking was done using the OpenCV library and a convolutional neural network to detect when drivers are looking at the road versus distracted. This was also made using Google Cloud Functions, Google MySQL Database, and integrates with a banking API (TSYS API) to keep track of user rewards. Worked on a team of four engineers. Awarded 1st place in the Experienced Hack Category at HackAuburn and winner of TSYS sponsor prize.

Rain Alert Aug. 2019
Application that notifies users by text when there is inclement weather. This tool uses a Python backend that is hosted on Heroku and runs on a cron job. The code reads from an AWS Postgres database to see if the weather in a user's zip code meets their criteria and then sends them a text message using the Twilio API. Users can sign up on a NodeJS website and include their information in order to be notified.

SKILLS

Python, Java, mySQL, Django, Vue, Pytest, Jest, API's, AWS

PUBLICATION

Desymmetrization of difluoromethylene groups by C–F bond activation
Butcher, T.W., Yang, J.L., Amberg, W.M. et al. Desymmetrization of difluoromethylene groups by C–F bond activation. Nature 583, 548–553 (2020).

ACTIVITIES

Georgia Tech Undergraduate Research Ambassador, *Vice President of Internal Affairs* Aug. 2018 - May 2019
- Manage volunteering of all members, budget for events, facilitate organization of for events
- Aim to help other Georgia Tech undergrad students find research opportunities and maintain healthy and productive research experiences