Canaan McKenzie

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Technical skills

- Data pipeline development (Python, Spark)
- Data analytics (Python)
- Web application development (C#/.NET)
- Database management (PostgresSQL)
- Programming in C/C++, C#/.NET, JavaScript, Elixir
- Experience with Docker, AWS, and Azure
- 3D CAD modelling (SolidWorks)
- Web design & desktop publishing

Experience

Data analysis and Software Contractor, Bugcrowd *Jan 2021 – present*

- Provide data science contract services in data security and access rights to Bugcrowd clients
- Develop and maintain web applications and security auditing documentation specializing in C#/.NET applications.

Scientist I, Vaxcyte *Aug 2020 – Jan 2021*

- Worked as a research scientist investigating the use of industrial robotics in high throughput analysis of compound vaccine candidates
- Created a generalized framework for cataloguing and retrieving data on degradation of novel polymer compounds within varying buffer solutions across teams in the United States and Europe
- Wrote standard operating procedures for pre-clinical trials validated by cGMP quality assurance auditors for companywide manufacturing

Analytical Chemist, Pacific Biolabs *Jan 2019 – Aug 2020*

- Responsible for creation, validation, and execution of experiments under cGMP and GLP guidelines
- High Performance Liquid Chromatography (HPLC), Enzyme-Linked immunosorbent assays (ELISA), Western/Southern blot, Gas chromatography-mass spectrometry (GC-MS)) as needed for long-term entries into large data sets
- Maintained fault-tolerant databases to avoid data loss/system failure in critical infrastructure

Research Assistant at The Engineered Biomaterials Research Lab, The University of Vermont *Dec 2014 – Feb 2018*

- Designed and built software/hardware for a 3D polymer extrusion system for translating CAD models into complex stem cell scaffolding
- Wrote embedded software to control a multi-axis movement system under strict biologically inert conditions
- Presented research in URC conference posters (2015,2016) and SFB conference posters (2017)

Education

Bachelor of Science in Mechanical Engineering, Minor in Computer Science *2012-2017*
The University of Vermont

Publications

- Patrick Nelson Charron, Sarah E. Blatt, Canaan McKenzie, Rachael Oldinski (2017). Dynamic mechanical response of polyvinyl alcohol-gelatin theta-gels for nucleus pulposus tissue replacement. Biointerphases 12(2). DOI: 10.1116/1.4982643
- Tianxin Miao, Emily Julia Miller, Canaan McKenzie, Rachael Oldinski (2015). Physically crosslinked polyvinyl alcohol and gelatin interpenetrating polymer network theta-gels for cartilage regeneration. Journal of Materials Chemistry B. DOI: 10.1039/C5TB00989H