Joseph Martin Moran III

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Objective

To advance research in the field of blockchain technology, leveraging my experience as a data scientist, biochemist and blockchain developer.

Skills

•Full Stack •Python •JS/TS •Solidity •Smart Contract Development & Implementation •Algorithmic Trading Bots •Wax Blockchain •Scala •JVM •SQL •Rust •Cpp •C# •Ethical Hacking •Linux •SEO •Machine Learning

•Molecular Docking •Chimera/Amber •Cloning •Protein Expression/Purification •RTPCR, qPCR, and ddPCR •DoE •Fluorescence Anisotropy •Cell Based Imaging (ICW and HCI) •Western and Northern Blot •Virus Manufacturing •HPLC •ELISA •JMP •Minitab •DLS •Radionuclide-labeled Molecular Activity Assays •Enzymatic Assays •Relative Potency Analysis •GLP

Work Experience

Blockchain Consultant, **MCM LLC** *(2021 – Present)*
- Implemented ERC721A NFT mint contract for Ben Eines NFT collection
- Assisted in developing the framework for the RedKiteNFT marketplace on Ethereum
- Developed a trading bot that utilizes the NGSA2 algo for optimization
- Updated the BEP20 contract standards to be Solidity 8 complaint (previously Sol 6)
- Developed a Twitter Sentiment bot utilizing GPT3 and NNL

Analytical Developmental Associate Scientist, **Penn Gene Therapy Program** *(2020 – 2021)*
-Developed and qualified assays under GLP conditions.
- Developed and qualified an enzymatic assay in accordance with GLP conditions
- Created QA approved SOPs and BRFs for GLP assays.
- Wrote QA approved Qualification and Developmental Reports

Resource Technologist, **Penn Gene Therapy Program, Analytics Group** *(2017 – 2020)*
- Ran qualified assays under GLP conditions.
- Ran and managed Biodistribution studies under GLP conditions
- Qualified an enzymatic assay in accordance with GLP conditions
- Developed a RTPCR assay to test relative RNA expression induced by a gene therapeutic
- Created QA approved SOPs and BRFs for GLP assays.
- Wrote QA approved Qualification and Developmental Reports

Resource Technologist, **Penn Gene Therapy Program, Vector Core** *(2015-2017)*
- Manufactured research grade AAV
- In charge of ordering and maintaining supplies for manufacturing.

Research Technologist, **Penn State University, Craig Cameron Lab** *(2014-2015)*
- Elucidated Coronavirus RDRP using Mouse Hepatitis Virus as a model system
- Characterization of RDRP using radionuclide labeled nucleotides
- Further characterization of purified RDRP and its replication complex using DLS
- 3D printed gel casters to better make polyacrylamide gels

Undergraduate Research, **Penn State University, Craig Cameron Lab** *(2011-2014)*
- Investigated the mechanism in which positive sense RNA viruses hijack host membranes to form organelles necessary for genomic replication.
- Expressed and purified different 3C mutants.
- Characterized different 3C mutants' ability to bind RNA as well as different phosphorylated species of phosphoinositides utilizing fluorescence anisotropy.
- Used DLS to better characterize 3C samples that were purified using column

chromatography.

Laboratory Assistant, **Penn State University, Rebecca Falsone** *(2010-2011)*
- Prepared agar plates and reagents for Penn State academic labs
- Autoclaved, cleaned glass wear, and ensured academic microbiology labs were set up before class

Education

Pennsylvania State University, University Park PA *(Received May 2014)*
Bachelor of Science in ***Biochemistry Molecular Biology, Cell Biology Option***
Minor in ***Microbiology***

University of Pennsylvania, Philadelphia PA *(September 2020-2022)*
Master of Science in ***Biotechnology***
GPA: 4.0

Abstracts:

Jamie J. Arnold, Hyung-Suk Oh, Sravani Banerjee, Maria F. Lodeiro, Qingxia Han, Djoshkun Shengjuler, Akira Uchida, Ibrahim M. Moustafa, Joseph Moran, Nai-Yun Hsu, Yan Mei Chan, Nihal Altan-Bonnet, David D. Boehr, and Craig E. Cameron. On the role of protein 3CD in formation of the poliovirus replication organelle (2013). Biophysical Society

Jamie J. Arnold, Hyung-Suk Oh, Sravani Banerjee, Maria F. Lodeiro, Qingxia Han, Djoshkun Shengjuler, Akira Uchida, Ibrahim M. Moustafa, Joseph Moran, Nai-Yun Hsu, Yan Mei Chan, Nihal Altan-Bonnet, David D. Boehr, and Craig E. Cameron. Redirecting phosphoinositide biosynthesis to the replication organelle of an RNA virus. (2013) Viruses and Cells Gordon Research Conference. (Barga, Italy) (Poster)

Djoshkun Shengjuler, Simou Sun, Yan Mei Chan, Joseph M. Moran, Akira Uchida, Ibrahim M. Moustafa, Jamie J. Arnold, Paul S. Cremer, David D. Boehr, and Craig E. Cameron. Poliovirus 3C protein is a phosphatidylinositol-phosphate-binding protein (2013). America Society for Virology 32nd Annual Meeting. (University Park, PA) (Talk)

Related Experience and Acknowledgements

Viruses: *Developing Strategies to Prevent and Treat Infections* "Focusing on Viruses." *Penn State Science* (June, 2013): Page 16
Volunteered for 32nd annual American Society of Virology conference held at Pennsylvania State University July, 2013
Recipient of Eberly Family Chair Endowment June, 2013

Memberships

Jan. 2012 – May 2014	The America Society of Virology, Pennsylvania State University Chapter
Jan. 2012 – May 2014	The America Society of Microbiology, Pennsylvania State University Chapter
Sep. 2012 – May 2014	The Pennsylvania State University RNA Club
Sep. 2020 – 2021	Penn Biotech Group Healthcare Consulting
Sep. 2020 – 2021	Penn Biotechnology Student Association Board Member – GSEG Representative
Sep. 2020 – 2021	GSEG Voting Member