

Bijan HANEY

New York City, NY

email: me@bijanhaney.com
website: bijanhaney.com
linkedin: www.linkedin.com/in/bijan-haney
ORCID: [0000-0001-9238-0888](https://orcid.org/0000-0001-9238-0888)

SKILLS

PROGRAMMING: (*Proficient*) Python, C++, bash, SQL
(*Basic*) Javascript
SOFTWARE/TOOLS: (*Proficient*) Linux/Unix, PyTorch, Detectron2, git, CI, pandas, scikit-learn, numpy, scipy
(*Basic*) Tensorflow, jekyll, flask, gunicorn, nginx, ROOT, \LaTeX
OTHER: Computer vision, NLP, machine learning/AI, hypothesis testing, statistics, regression analysis, experimental design, web scraping, blockchain, physics
LANGUAGES: Fluent in English and Italian

EXPERIENCE

APR. 2019 - PRESENT | **Senior AI Research Engineer** - Augustus Intelligence, *New York City, NY*

- Researcher in fine-grain, few-shot computer vision models. Developed classifiers that could learn novel categories with 1 to 5 examples. [Workshop paper accepted at CVPR 2020](#).
- Used PyTorch to develop, train, and test object detection and segmentation models to label retail products and people.
- Built and maintained GPU deep learning workstations for the AI team.

AUG. 2018 - APR. 2019 | **Co-Founder & Tech Lead @ Endjinn** - ConsenSys, *Brooklyn, NY*

- Led the development of back-office role automation agents at Endjinn, the AI group within the Ethereum venture studio Consensusys. Created a medical insurance claims agent that automatically read forms with OCR, processed the text, caught errors, and adjusted claims.

JAN. 2017 - JAN. 2018 | **Data Acquisition Operations Coordinator** - CERN, *Geneva, Switzerland*

- Led a team of five physicists in the on-line monitoring and repair of the TRT, a particle tracker and electron identification subdetector in the ATLAS detector.
- Migrated the codebase to git and CMake and implemented CI in GitLab for automatic testing and deployment. Developed a documentation system for the subdetector on the web with Jekyll.
- Developed a C++ program to access an SQL database of weekly detector threshold readings and automatically detect and fix the threshold errors due to radiation damage.

AUG. 2013 - NOV. 2018 | **Graduate Research Assistant** - University of Pennsylvania, *Philadelphia, PA*

- Helped develop a C++/Python end-to-end framework (30k+ lines) for cleaning, transforming, analyzing, and visualizing terabytes of data and Monte Carlo simulations using distributed HPC.
- Formulated and optimized a filter in C++ to reduce the stream of data from the Large Hadron Collider by 99.97% while still saving 99.5% of the desired signal for the analysis.
- Implemented maximum likelihood methods with hundreds of systematic uncertainties to measure how often a Higgs boson was produced in the LHC, published in [Physics Review Letters](#).

PROJECTS/OTHER

JAN. 2018 - MAY 2018 | **1517 fellow (arXain)**: Co-founded and developed an open-access, decentralized scientific journal on the Ethereum blockchain to disrupt the scientific publishing industry. Won **Best Blockchain Hack** and **Most Promising Hack** at *PennApps XVII* Hackathon in Philadelphia. Used the Ethereum blockchain as the ledger and IPFS as the distributed server. www.devpost.com/software/arxain

EDUCATION

AUG. 2013 - NOV. 2018 | Ph.D in ELEMENTARY PARTICLE PHYSICS, (M.S. in 2015)
University of Pennsylvania, Philadelphia, PA

SEP. 2008 - MAY 2012 | B.S. in PHYSICS (Intensive),
Yale University, New Haven, CT