

Paul E. Scheid

Researcher | Educator | Entrepreneur

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Summary

Experienced educator (10+ years), genomics & computational biology researcher (15+ years), and entrepreneur (7+ years). Currently, Founder of [MILRD](#)—an education/training organization that offers [Virtual Training Projects](#) in advanced bioinformatics and other data science techniques for professionals, trainees, and students (high school through graduate level). Previously co-founded Solvuu, a genomics software company, and led the Genomics Core Lab at the NYU Center for Genomics and Systems Biology.

Areas of Expertise

- Reproducing bioinformatics analysis pipelines with Linux, R, and Python, Docker, AWS (EC2, S3)
- Genome biology and Next Generation Sequencing technology (wet-lab & bioinformatics)
- Leading virtual training programs in computational biology & data science
- Collaborating with research scientists to create virtual training projects based on their work
- Experience training diverse experience levels: professionals, trainees, and students
- Service-oriented products and offerings

Experience

Founder and CEO, MILRD

Feb 2020 – Present | San Francisco, CA

- Head of product for Virtual Training Project (VTP) program and associated instructional web app platform for cultivating competencies such as metagenomics, scRNA-seq, and resequencing analysis—enrolling 1000+ participants to date. Largest cohort to date: 130 participants.
- Designed, created, and implemented VTPs in [collaboration](#) with academic researchers at organizations including Cornell Med, NYU Med, Harvard Med, MSKCC, Harvard U., and Opportunity Insights.
- Led or co-led 90+ training project cohorts to date (3-20 participants per cohort), with each VTP participant receiving their own AWS-hosted environment to complete assigned bioinformatics tasks.
- Participants from over [50 organizations](#) have completed VTPs.
- [Partnered](#) with MindsOf Initiative and RISE Program at Hunter College to enroll disadvantaged students.
- Awarded over \$110K in grants [Illumina Corporate Foundation](#) and other orgs to enroll aspiring scientists at the high school and college levels from underrepresented backgrounds and teachers from high-need schools ([Impact Report](#) from 170 scholarship participants).
- Assembled [Advisory Board](#), which includes Dr. Chris Mason (Weill Cornell Medicine), Dr. Mandë Holford (CUNY, AMNH), and Dr. Adriana Heguy (NYU Med) *et al.*

Founder and CEO, Trelify

Sep 2015 – Jan 2020 | New York, NY

- Education consultancy that created customized project offerings with high-touch mentorship for high school and college students (\$20-30K+ per project).
- Partnered with [IvyWise](#)—an elite college admission consultancy—and other education firms to recruit students. Project examples: research project in computer vision, prototyping mobile app.

Co-founder, COO, Director of Genomics, Solvuu

Mar 2014 – Sep 2015 | New York, NY

- Led genomics application design, testing, and iteration for the AWS-hosted Solvuu application.
- Managed relationships with initial customers and collaborators.
- Co-authored two Small Business Innovation Research (SBIR) grants.

Manager (Research & Operations), Genomics Core Laboratory, NYU

Center for Genomics and Systems Biology

Jun 2009 – Mar 2014 | New York, NY

- Led consultations to design/execute next generation sequencing experiments. Developed an experimental plan, timeline, types of data analysis required, and price, for distribution to all concerned.
- Directly supervised Genomics Core technical staff and team operations (3 full-time employees).
- Advisor to NYU Abu Dhabi Center for Genomics and Systems Biology Genomics Core.
- Member of Core Lab Working Group at New York Genome Center (NYGC).
- Coordinated NYU-HITS, monthly high-throughput sequencing (HiTS) methods & analysis seminar series.

Instructor and Tutor, Bespoke Education

Jan 2008 – Jan 2016 | New York, NY

- Taught courses and tutored individual students in STEM at the high-school and college levels. Subjects included: Biology, Chemistry, Physics, Math (all levels through multivariable calculus), and coding.

Lab Manager and Assistant Research Scientist, NYU

Jul 2007 – May 2009 | New York, NY

Career Note: earlier roles included student research assistantships at Cleveland Clinic, Case Western Reserve U., and U. of Pennsylvania in neurobiology, hematology, cardiology, and stem cell biology.

Selected Publications (complete publication list [here](#))

- Brenner ED, [Scheid PE](#), ... (2021). Using the Integrated Genome Viewer to reveal amplicon-derived polymorphism enriched at the phenylthiocarbamide locus in the teaching lab. **Biochem Mol Biol Educ**. PMID: [33426769](#).
- Bradic M, ..., [Scheid PE](#), ... (2017). Genetic Indicators of Drug Resistance in the Highly Repetitive Genome of *Trichomonas vaginalis*. **Genome Biol Evol**. PMID: [28633446](#).
- Gerstein MB, ..., [Scheid PE](#), ... 132 authors, (2010). Integrative Analysis of the *Caenorhabditis elegans* Genome by the modENCODE Project, **Science**. PMID: [21177976](#).
- Gross JB, ..., [Scheid PE](#), ... (2008). Synteny and candidate gene prediction using an anchored linkage map of *Astyanax mexicanus*. **PNAS**. PMID: [19104060](#).

Selected Meetings and Abstracts

- Session Organizer & Presenter (2013). NGS Laboratory Information and Data Management Systems, **Northeast Regional Life Science Core Directors Meeting**; New York, NY.
- Agarwal A, Mondet S, [Scheid PE](#), Madar A, Bonneau R, Carlton JM, Gunsalus KC (2012). Functional Big-Data Genomics. **Commercial Users of Functional Programming (CUFP)**, Copenhagen, Denmark.
- Mondet S, Agarwal A, [Scheid PE](#), Madar A, Bonneau R, Carlton JM, Gunsalus KC (2012). Managing Analyzing Big-Data in Genomics. **IBM Programming Languages Day**, Armonk, NY.
- [Scheid PE](#), Spencer C, Gutwein M, Agarwal A, Gunsalus KC, Miller D III (2012). A Comparison of Single-cell RNA-seq with Gene Expression Microarrays. **Advances in Genome Biology and Technology (AGBT)**, Marco Island, FL.

Education & Technical Proficiencies

Bachelor of Arts | Media Studies | 2010

New York University | New York, NY

Coursework in media, communications, economics, calculus, bioengineering, physics, molecular biology, chemistry, computer science, sociology, and anthropology.

Bioinformatics: Linux/Unix, R, Python, AWS, Github, Docker, bioconductor

Wetlab: NGS Library Preparation, scRNAseq, ATAC-seq, ChIP-seq, Re-sequencing *et al.*

Project management: Slack, Zoom, Google Docs, Stack Overflow, Microsoft Office, R Markdown

Other Interests: Out in Tech, Front Runners, SF Tsunami Swim Team, Cooking/Baking