

# Ira Horecka

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## WORK EXPERIENCE

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### Personalis, Inc.

Jul. 2020 – Aug. 2021

*Laboratory Process Automation Engineer*

*Menlo Park, CA*

- Served as one of the core Hamilton VENUS developers.
  - Programming portfolio (<https://github.com/irahorecka>)
- Worked closely with a team of scientists to develop, test, document, and release effective automation protocols.
- Wrote error-safe VENUS API wrappers for four external device libraries.
- Integrated Python scripts with Hamilton methods to achieve capacities and code readability otherwise difficult using the VENUS language alone.
- Created utility web applications (full stack development) to assist automation systems operators.

### Five Prime Therapeutics

Dec. 2017 – Sept. 2019

*Research Associate II*

*South San Francisco, CA*

- Served as the molecular biology lead in developing automated high-throughput workflows and organizing collaborative projects with the systems engineering department.
- Developed automation protocols on Tecan, Beckman FX, Qpex and served as the power user to train others.
- Wrote automated tasks using Python and performed statistical and graphical analysis using R.
- Implemented Golden Gate cloning for high-throughput recombinant protein and antibody synthesis.

### Bayer

Nov. 2016 – Dec. 2017

*Associate Scientist*

*Berkeley, CA*

- Developed an elution buffer formula for a challenging affinity chromatography step that improved product recovery rate from 10% to 75%.
- Collaborated with a team of scientists to design and document a scalable downstream process that transitioned from bench scale to pilot scale.

## EDUCATION

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### University of California, Santa Cruz

June 2016

*BS, Biochemistry and Molecular Biology*

*Santa Cruz, CA*

- Upper division courses in Organic and Physical Chemistry, Biochemistry, Molecular and Cell Biology.
- Completed upper division courses in Japanese and played the lead role in a historical Japanese play.

## SKILLS & INTERESTS

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- **Skills:** Programming (Python, R, HTML/CSS/JS); creating protocols and troubleshooting liquid handlers; molecular biology (Golden Gate cloning, high-throughput DNA handling, Sanger sequencing); protein chemistry (purification and analytical chromatography, ELISA, mammalian cell transfection); public speaking (department and inter-department presentations); fluency in Japanese
- **Interests:** Coding projects; refurbishing bicycles; bass fishing; sustainability; traveling; beer; Twin Peaks

## PUBLICATIONS

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- Clarke, Jesse, et al. "A conserved signaling network monitors delivery of sphingolipids to the plasma membrane in budding yeast" *Molecular Biology of the Cell*, vol. 28, no. 20, 2017, pp. 2580 - 2599.
- van Leeuwen, Jolanda, et al. "Exploring Genetic Suppression Interactions on a Global Scale" *Science*, vol. 354, no. 6312, 2016, pp. aag0839.