UYEN NGUYEN

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GitHub: https://github.com/uyennguyen30696
Portfolio: https://uyennguyen30696.github.io/react-portfolio/

PROJECTS

- ❖ **MERFISH Cancer Cell Type Prediction** (2023 - present) - Spatial transcriptomics with a specific focus on the downstream analysis of MERFISH data derived from human lung cancer samples made available by Vizgen company. This analysis includes the evaluation of cell type annotation tools, the annotation of cell types within the samples, distinguishing between healthy and cancer cells, and exploring differential gene expression among these cell types within different histological regions.
  Python, R
  Python packages: numpy, pandas, scanpy, matplotlib, sklearn, squidpy, and more

- ❖ **React Portfolio** (2021). My personal portfolio showcasing my web applications.
  https://uyennguyen30696.github.io/react-portfolio/
  Javascript, CSS, React.js

Additional projects are hosted on my Github at *https://github.com/uyennguyen30696*

PROGRAMMING LANGUAGES & TECHNOLOGIES

- ❖ Languages: Python, R, Javascript
- ❖ Python modules & tools: pandas, numpy, matplotlib, scikit-learn
- ❖ HTML5, CSS, React.js, Vue.js
- ❖ Version control & deployment: Visual Studio, Jupyter Notebook, Git/GitHub, Py4web
- ❖ Databases: SQL, MongoDB
- ❖ Object-oriented programming

LABORATORY SKILLS

- ❖ Pipetting, sterile technique, PCR, qPCR
- ❖ Next Generation Sequencing, library preparation, DNA purification
- ❖ Tissue processing, sectioning, cell staining
- ❖ Operating instruments: thermocycler, light microscope, centrifuge, TapeStation, tissue processor

EMPLOYMENT

Graduate Student Researcher   **February 2023 - Present**
Benedict Paten's Lab   Santa Cruz, CA

- ❖ Associated with the MERFISH cancer cell type prediction project in the spatial transcriptomics team
- ❖ Engaged in weekly lab meetings with presentations about related research topics

Teaching Assistant   **September 2022 - June 2023**
University of California, Santa Cruz   Santa Cruz, CA

- ❖ Courses: CSE 20 (Beginning programming in Python), CSE 183 (Web applications), Chem 8A (Organic chemistry)
- ❖ Conducted discussion sessions and prepared slides for supplementary materials
- ❖ Proctored exams, graded assignments, and provided constructive feedback for students

Research Associate   **May 2021 - August 2022**
Cantata Bio, LLC   Scotts Valley, CA

- ❖ Associated with TopoLink assay development project in R&D team that was successfully launched in June 2022, while utilizing laboratory techniques such as DNA purification, PCR, qPCR, capillary electrophoresis, and more
- ❖ Prepared libraries for Next Generation Sequencing
- ❖ Operated Next Generation Sequencing instruments, including MiniSeq, MiSeq, and NextSeq
- ❖ Engaged in monthly science journal club with research team members by interpreting and discussing research literature to keep up with recent advances in biotechnology
- ❖ Maintained records of incoming shipments of all lab resources and inventory control
- ❖ Participated in hiring interview process of research associate role

Grossing Technician   **September 2019 - November 2020**
California Skin Institute   Los Gatos, CA

- ❖ Maximized efficiency by preparing patients' tissue for specimen processing in fast-paced environment
- ❖ Created gross descriptions and dictation according to grossing protocols as well as filed tissue blocks and slides
- ❖ Accessioned clinical information of patients' skin biopsy samples using Pathology reporting IntelliPath software
- ❖ Preserved chemical resources to save possibly thousands of dollars while ensuring the maintenance of the tissue processor
- ❖ Participated in training of new lab technicians

EDUCATION

M.S., Biomolecular Engineering & Bioinformatics   **September 2022 - Present**
University of California, Santa Cruz   Santa Cruz, CA

Certificate, Full Stack Web Development   **September 2020 - March 2021**
UC Davis Continuing and Professional Education   Remote

- ❖ Fundamental concepts of web development, command line, and API consumption
- ❖ Working with servers, databases, back end technologies, and connecting them to the front end
- ❖ Optimize web applications for speed and efficiency

B.S., Biochemistry and Cell Biology   **August 2017 - August 2019**
University of California, San Diego   La Jolla, CA

A.A., Liberal Arts - Science, Math & Engineering   **June 2014 - May 2017**
De Anza College   Cupertino, CA