Nick Grosenbacher

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Objective

Seeking internship/co-op in software development where knowledge of data science, biology/healthcare, or artificial intelligence are potential assets. Open to relocation.

Education

The Ohio State University — Columbus, Ohio
BS Computer Science and Engineering *GPA: 3.86* — Expected Graduation: December 2019

Awards & Honors

Maximus Scholarship — 2015 — Present
Dean's List — 2015 — Present

Experience

The Ohio State University Comprehensive Cancer Center — Columbus, Ohio
Pelotonia Undergraduate Research Fellow — August 2017 — Present

- Competitive fellowship awarded to 26 Ohio State undergraduate students to conduct cancer research. Awarded annual stipend. Research conducted under Drs. James Chen and John Hays.
- **Project** | *Impact of VEGF modulation on MLN0128 Sensitivity in Endometrial Cancer*
  - Identified association between VEGF expression and drug sensitivity from proteomics analysis
  - Currently investigating the effect of modulating VEGF protein levels in *in vitro* models.

National Cancer Institute — Salt Lake City, Utah
Cancer Systems Biology Consortium Undergraduate Research Fellow — June 2017 — August 2017

- Selected as one of 17 undergraduates from a national pool of candidates. Awarded stipend, reimbursement for living and travel. Research conducted at the University of Utah under Dr. Andrea Bild.
- Developed applications to identify associations across large patient datasets in Python/R/Shiny.
- **Project** | *Mutation Signature–Copy-Number Variation–GSEA Correlation Tool*
  - Application used to identify correlations between amplified DNA regions and gene set expression across large groups of patients
  - Integrated tool used to identify patterns of DNA point mutations and associate patterns with gene set expression
  - Implemented interface in R/Shiny to provide an accessible, informative and interactive GUI
- **Poster** | *In Breast Cancer, Mutation Signature 30 is Most Prevalent in the Luminal A Subtype*
  - Used my own tool to identify gene signatures associated with a rare pattern of mutation in breast cancer
  - Presented at Cancer Systems Biology Consortium Undergraduate Research Conference, Bethesda, MD

The Ohio State University Department of Biomedical Informatics — Columbus, Ohio
Student Intern — May 2016 — August 2017

- Developed tools in R/Shiny for visualization and analysis of patient survival data
- Analyzed gene expression data using R/Bioconductor to identify associations between gene sets and drug sensitivity
- **Poster** | *Stem Cell Markers as Predictive Biomarkers for MLN0128 Sensitivity in Endometrial Cancer*
  - Discovered gene signature linked to sensitivity to an anticancer drug in endometrial cancer cell lines
  - Presented at Ohio State Dept. of Biomedical Informatics Internship Poster Session, Columbus, OH

Coursework & Skills

Languages and Tools:	Java, C++, C, R, Shiny, Bioconductor, Python, Ruby, Git, Bash, HTML/CSS, LaTeX, MATLAB
Coursework Topics:	In progress: Artificial intelligence, operating systems, web applications Completed: Object-oriented programming, algorithms and data structures, low-level programming and assembly, bioinformatics, statistics, circuit design, technical communication

Activities

The Ohio State University Jazz Lab Ensemble — Autumn 2017 — Present
The Ohio State University Athletic Band — Autumn 2015 — Present
The Ohio State University Green Engineering Scholars — 2015 — 2017