

Christopher Tastad | Resume

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Education

Bioinformatics, MS

University of Minnesota, Bioinformatics and Computational Biology

Capstone: Copy number variation in ovarian cancer from single cell and whole exome sequencing data.

Minneapolis, MN

Dec 2019

Biochemistry, BS

University of Minnesota, College of Biological Sciences

Minneapolis, MN

May 2011

Skills

Languages: R, BASH, \LaTeX , SQL, HTML, CSS, XML, JSON

Platforms: Linux (Ubuntu, RHEL, Centos), git, Nginx, Apache, HPC, AWS, Docker, Oracle, Wordpress

Packages: rmarkdown, shiny, ggplot2, dplyr, jsonlite, DT

Genomics: samtools, bwa-mem, bedtools, Seurat, VarScan2, Excavator, DNACopy, parallel, SummarizedExperiment

Algorithms: Hidden Markov model, FastCall

Statistics: Hypothesis testing, Simple/Multiple/Poisson Regression, A/B Testing, Contingency Testing, ANOVA, Survival Analysis, K-means, PCA, K-nearest neighbor, SVM, Bayesian Networks, Functional Linkage Networks

Benchwork: DNA/RNA/protein isolation and analysis, western blotting, PCR, ELISA, luciferase, immunostaining, histology, epigenetic analysis, FACS, mammalian cell culture

Experience

Graduate Research Assistant

Department of OBGYN, Starr Lab

Minneapolis, MN

May 2019 — Present

- Executed full rewrite of cancer gene web app: deployed new framework, reduced codebase, removed need for SQL database.
- Applied bioinformatic focus into copy number variation on a largest of its kind single-cell sequencing human cancer dataset.
- Developed pipeline to automate analysis process from raw data to figures, incorporating HMM and FastCall algorithms.

Load Planning Engineer

United Parcel Service, Industrial Engineering

Minneapolis, MN

Oct 2018 — Present

- Primary authority in guiding all load functions for 112 outbound doors; mediating hub, feeder, and engineering priorities.
- Advance district level interests through industrial engineering technologies for operational, flow, and system analysis.
- Generate daily cost savings through identification and elimination of trailer runs which average to a value of \$500–1000.

Supervisor

United Parcel Service, Small Sort

Minneapolis, MN

Oct 2017 — Oct 2018

- Managed a team of 35 employees in largest operational unit in the Northern Plains District HQ sort hub.
- Delivered an immediate 15% production increase to area within first month (representing 40% of daily volume).
- Developed novel improvement projects leading to elimination of package missorts and training with disability access.

Package Sorter

United Parcel Service

Minneapolis, MN

June 2017 — Oct 2017

Graduate Research Assistant

National Marrow Donor Program, Bioinformatics

Minneapolis, MN

Jan 2016 — July 2017

- Employed scientific method as an investigator in a corporate R&D department with a focus in hematological cancers.
- Took both basic and clinical approach to investigation in cell therapy, immunology, and organ transplant genetics.
- Aided development of initiative around IP generation using existing company technology and 13 million patient database.

Biorepository Technician

National Marrow Donor Program, Research Repository

New Brighton, MN

Sept 2014 — Jan 2016

- Conducted specimen processing in high-throughput clinical laboratory facility, processing 1000s of samples per day.
- Managed 300k patient database and long-term storage for FDA and Clinical Trials Network samples using GLP.
- Contributed to larger registry activities maintaining Be The Match patient-donor sample receiving, storage, and typing.

Banquet and Dining Server

Minneapolis Club

Minneapolis, MN

Oct 2013 — Sept 2014

- o Performed setup, service, and take down for dining room and banquets ranging from chef's table dinners to events of 500+.
- o Trained in the manner of French service and hospitality to maintain an elite level of accommodation and experience.
- o Participated in maintenance and building upkeep when called upon by external departments.

Co-founder

Face to Face Organics LLC.

St. Anthony, MN

July 2012 — Jan 2014

- o Co-founded a personal care products start up that connected social activism with our product and its use.
- o Deployed company's operating software stack on limited budget with minimal upfront cost or sustained overhead.
- o Established company systems around e-commerce, CRM, distribution, logistics, accounting, sales tracking, and inventory.

Research Associate

The Stem Cell Institute, Asakura Lab

Minneapolis, MN

Dec 2007 — Jan 2013

- o Performed basic science research with a focus in skeletal muscle development, receiving 4 co-authorships.
- o Well versed in full spectrum of molecular biology, histology and cell biology wet lab techniques and diagnostics.
- o Authored significant writing efforts for group manuscripts and major grant awards, including a successful R01 bid.

Teaching Assistant

University of Minnesota, CBS BIOL2004

St. Paul, MN

Sept 2009 — May 2012

- o Led teaching lab that included an integrative, research-focused curriculum, highlighting significant independent discovery.
- o Consistently called on by course instructor for consultation in the improvement of course materials and curriculum.
- o Received highest rating among all course TAs as indicated by students in post-semester evaluations for 2012 year.

Founder, Lobbyist, and Chairman

Minnesota Student Legislative Coalition

Minneapolis, MN

Oct 2009 — July 2012

- o United leaders from all 5 U of M campuses to form the active student lobby, earning the University's endorsement.
- o Directed wide range of issues: education funding, loan rates, textbook pricing, campus safety, and veteran accreditation.
- o Trained and supervised a team that guided the authorship of 4 student-specific bills during 2012 state legislative session.

Personal

Hobbies: Racquetball, Self-hosting software, CAD design & 3d printing, Camping, Fishing, Hunting, Reading

Volunteering

IT Consultant

Trinity Lutheran Church of Montevideo

Montevideo, MN

July 2017 — Present

Youth Camp Racquetball Coach

University of Minnesota, Recwell

Minneapolis, MN

July 2017 — July 2017

Child Life Specialist

Shriner's Hospital for Children

Minneapolis, MN

Dec 2008 — May 2013

IT Consultant & Umn Chapter Co-founder

Ducks Unlimited

Edina, MN

Nov 2008 — July 2011

EMT

University Emergency Medical Services

Minneapolis, MN

Oct 2008 — May 2010

Trauma Ward Aide

Student Travel and Exposure South Africa

Cape Town, South Africa

June 2009 — July 2009

Publications

- [1] **Tastad, C. T.** and M. Verma. RefSearch: A tool to more accurately identify normalization candidates for RNAseq analysis. *Manuscript in preparation*, 2019.
- [2] Y. Nakamura, Y. Asakura, B. A. Piras, H. Hirai, **Tastad, C. T.**, M. Verma, A. J. Christ, J. Zhang, T. Yamazaki, M. Yoshiyama, and A. Asakura. Increased angiogenesis and improved left ventricular function after transplantation of myoblasts lacking the MyoD gene into infarcted myocardium. *PLoS ONE*, 7(7):e41736, 2012.
- [3] S. Watanabe, H. Hirai, Y. Asakura, **Tastad, C.**, M. Verma, C. Keller, J. R. Dutton, and A. Asakura. MyoD gene suppression by Oct4 is required for reprogramming in myoblasts to produce induced pluripotent stem cells. *Stem Cells*, 29(3):505–516, Mar 2011.
- [4] H. Hirai, M. Verma, S. Watanabe, **Tastad, C.**, Y. Asakura, and A. Asakura. MyoD regulates apoptosis of myoblasts through microRNA-mediated down-regulation of Pax3. *J. Cell Biol.*, 191(2):347–365, Oct 2010.

- [5] M. Verma, Y. Asakura, H. Hirai, S. Watanabe, **Tastad, C.**, G. H. Fong, M. Ema, J. A. Call, D. A. Lowe, and A. Asakura. Flt-1 haploinsufficiency ameliorates muscular dystrophy phenotype by developmentally increased vasculature in mdx mice. *Hum. Mol. Genet.*, 19(21):4145–4159, Nov 2010.

Awards

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| Advocate of the Year: University of Minnesota Alumni Association | <i>Oct, 2012</i> |
| Spirit of MSA (MVP): Minnesota Student Association | <i>May, 2012</i> |
| Highest Rated TA: CBS BIOL2004 Lab Students | <i>May, 2012</i> |
| Research Fellowship: Gregory Marzolf Jr. Foundation | <i>Sept, 2009</i> |
| Distinct Honor — Presenter's Award: LHI/SCI Building Muscle and Blood Conference | <i>Oct, 2009</i> |
| Undergraduate Research Opportunity Grant: University of Minnesota | <i>2008, 2009, 2011</i> |