Christopher Tastad | Resume

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Education

Bioinformatics, MS   **Minneapolis, MN**
University of Minnesota, Bioinformatics and Computational Biology   *Dec 2019*
Capstone: Copy number variation in ovarian cancer from single cell and whole exome sequencing data.

Biochemistry, BS   **Minneapolis, MN**
University of Minnesota, College of Biological Sciences   *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, Hidden Markov Model, A/B Testing, Contingency Testing, ANOVA, Survival Analysis, K-means, PCA, K-nearest neighbor

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

Experience

Bioinformatician   **Minneapolis, MN**
University of Minnesota Dept. of OBGYN, Starr Lab   *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   **Minneapolis, MN**
UPS, Industrial Engineering   *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   **Minneapolis, MN**
UPS, Small Sort   *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   **Minneapolis, MN**
UPS   *June 2017 — Oct 2017*

Graduate Research Assistant   **Minneapolis, MN**
National Marrow Donor Program, Bioinformatics   *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   **New Brighton, MN**
National Marrow Donor Program, Research Repository   *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, MN**
Minneapolis Club   *Oct 2013 — Sept 2014*

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

Co-founder   **St. Anthony, MN**
Face to Face Organics LLC.   *July 2012 — Jan 2014*
- Co-founded a personal care products start up that connected social activism with our product and its use.
- Deployed company′s operating software stack on limited budget with minimal upfront cost or sustained overhead.
- Established company systems around e-commerce, CRM, distribution, logistics, accounting, sales tracking, and inventory.

Research Associate   **Minneapolis, MN**
The Stem Cell Institute, Asakura Lab   *Dec 2007 — Jan 2013*
- Performed basic science research with a focus in skeletal muscle development, receiving 4 co-authorships.
- Well versed in full spectrum of molecular biology, histology and cell biology wet lab techniques and diagnostics.
- Authored significant writing efforts for group manuscripts and major grant awards, including a successful R01 bid.

Teaching Assistant   **St. Paul, MN**
University of Minnesota, CBS BIOL2004   *Sept 2009 — May 2012*
- Led teaching lab that included an integrative, research-focused curriculum, highlighting significant independent discovery.
- Consistently called on by course instructor for consultation in the improvement of course materials and curriculum.
- Received highest rating among all course TAs as indicated by students in post-semester evaluations for 2012 year.

Founder, Lobbyist, and Chairman   **Minneapolis, MN**
Minnesota Student Legislative Coalition   *Oct 2009 — July 2012*
- United leaders from all 5 U of M campuses to form the active student lobby, earning the University′s endorsement.
- Directed wide range of issues: education funding, loan rates, textbook pricing, campus safety, and veteran accreditation.
- 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   **Montevideo, MN**
Trinity Lutheran Church of Montevideo   *July 2017 — Present*

Youth Camp Racquetball Coach   **Minneapolis, MN**
University of Minnesota, Recwell   *July 2017 — July 2017*

Child Life Specialist   **Minneapolis, MN**
Shriner′s Hospital for Children   *Dec 2008 — May 2013*

IT Consultant & Umn Chapter Co-founder   **Edina, MN**
Ducks Unlimited   *Nov 2008 — July 2011*

EMT   **Minneapolis, MN**
University Emergency Medical Services   *Oct 2008 — May 2010*

Trauma Ward Aide   **Cape Town, South Africa**
Student Travel and Exposure 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

Advocate of the Year: University of Minnesota Alumni Association | *Oct, 2012*

Spirit of MSA (MVP): Minnesota Student Association | *May, 2012*

Highest Rated TA: CBS BIOL2004 Lab Students | *May, 2012*

Research Fellowship: Gregory Marzolf Jr. Foundation | *Sept, 2009*

Distinct Honor — Presenter's Award: LHI/SCI Building Muscle and Blood Conference | *Oct, 2009*

Undergraduate Research Opportunity Grant: University of Minnesota | *2008, 2009, 2011*