

ino de bruijn

bioinformatics engineer

contact

 Brooklyn, USA

 www.ino.pm

 ino@ino.pm

 github.com/inodb

languages

English fluency

Dutch native

Swedish proficiency

analysis

 Python

pandas, numpy

matplotlib, seaborn

scripting

Bash, AWK

pipelines

GNU Make

snakemake

devops

Travis-CI

Heroku, AWS

Docker

Git, Mercurial

frontend

React, Redux, D3

TypeScript

backend

Spring Boot

Flask, Django

databases

MySQL

PostgreSQL

experience

2015–now

Memorial Sloan Kettering Cancer Center

New York City, US

Bioinformatics Engineer

Developer of Knowledge Systems in Dr. Schultz' lab. Primarily the open source cBioPortal for Cancer Genomics. The portal provides visualization, analysis, and downloads of large-scale cancer genomics data sets.

React, Redux, Spring Boot, MySQL, Travis-CI, Heroku, Docker, AWS

First two years developer of analysis pipeline in Dr. Reis-Filho's breast cancer research lab. Pipeline performs mutation calling, copy number calling and estimates ploidy, purity and clonality.

Cluster computing, Python, Bash, R

2011–2014

SciLifeLab

Stockholm, Sweden

Bioinformatician

Developer of analysis pipeline in the environmental genomics research group at SciLifeLab. Consulted research groups within Sweden regarding DNA short read assembly.

Cluster computing, Python, Bash, R

Full stack developer for a lab information management system for the Ettema Lab.

Django, Python

2006–2010

Freelance Web Developer

Amsterdam, Netherlands

Self-Employed

Developed websites for Dutch clients including the Anne Frank House.

PHP, MySQL, CSS, HTML

2010

Composer

Amsterdam, Netherlands

Self-Employed

Composed music for a trailer of comic book De Terugkeer.

Ableton, Guitar, Drums, Keyboard

education

2010–2013

Masters in Bioinformatics

Stockholm University, Sweden

Thesis - Graded A

Benchmark of *de novo* Short Read Assembly Strategies for Metagenomics

Cluster computing, statistics, parallelization, Python, Bash, R

Courses

Bioinformatics, Structural Biochemistry, Molecular Modeling, Protein Physics, Structure Prediction of Proteins, Comparative Genomics, Machine Learning

2006–2009 **Bachelor** in Computer Science

University of Amsterdam, Netherlands

Thesis - Graded 8.5/10

Music Composition in a Distributed Collaborative Environment

Java, Google App Engine, SMIL

Courses

Programming, Databases, Networks, Operating Systems, Algorithms, Linear Algebra, Graphics, Computer Architecture, Logic, Statistics, Modeling

Teaching Assistant

Databases 1, Databases 2, Database Techniques, Program Algebra

publications

articles in peer-reviewed journals

Genetic Heterogeneity in Therapy-Naïve Synchronous Primary Breast Cancers and Their Metastases

F. C. Bidard, C. K. Ng, S. Piscuoglio, F. C. Geyer, R. Lim, I. De Bruijn, R. Shen, F. Pareja, S. Berman, L. Wang, J. Y. Pierga, A. Vincent-Salomon, A. Viale, L. Norton, B. Sigal, B. Weigelt, P. Cotu, J. S. Reis-Filho

Clin. Cancer Res. (Mar. 2017). 2017

Reconstructing a hydrogen-driven microbial metabolic network in Opalinus Clay rock

Alexandre Bagnoud, Karuna Chourey, Robert L. Hettich, Ino Bruijn, Anders F. Andersson, Olivier X. Leupin, Bernhard Schwyn, Rizlan Bernier-Latmani

Nature Communications 7 (Oct. 2016) p. 12770. Springer Nature, 2016

Uterine adenocarcinomas are mesenchymal neoplasms

S. Piscuoglio, K. A. Burke, C. K. Ng, A. D. Papanastasiou, F. C. Geyer, G. S. Macedo, L. G. Martelotto, I. Bruijn, M. R. De Filippo, A. M. Schultheis, R. A. Ioris, D. A. Levine, R. A. Soslow, B. P. Rubin, J. S. Reis-Filho, B. Weigelt

J. Pathol. 238.3 (Feb. 2016) pp. 381–388. 2016

A minimalistic microbial food web in an excavated deep subsurface clay rock

A. Bagnoud, I. Bruijn, A. F. Andersson, N. Diomidis, O. X. Leupin, B. Schwyn, R. Bernier-Latmani

FEMS Microbiol. Ecol. 92.1 (Jan. 2016). 2016

Massively parallel sequencing of phyllodes tumours of the breast reveals actionable mutations, and TERT promoter hotspot mutations and TERT gene amplification as likely drivers of progression

Salvatore Piscuoglio, Charlotte KY Ng, Melissa Murray, Kathleen A Burke, Marcia Edelweiss, Felipe C Geyer, Gabriel S Macedo, Akiko Inagaki, Anastasios D Papanastasiou, Luciano G Martelotto, Caterina Marchio, Raymond S Lim, Rafael A Ioris, Pooja K Nahar, Ino De Bruijn, Lillian Smyth, Muzaffar Akram, Dara Ross, John H Petrini, Larry Norton, David B Solit, Jose Baselga, Edi Brogi, Marc Ladanyi, Britta Weigelt, Jorge S Reis-Filho

The Journal of Pathology 238.4 (2016) pp. 508–518. John Wiley & Sons, Ltd, 2016

Binning metagenomic contigs by coverage and composition.

J. Alneberg, B.S. Bjarnason, I. Bruijn, M. Schirmer, J. Quick, U.Z. Ijaz, L. Lahti, N.J. Loman, A.F. Andersson, C. Quince

Nat Methods 11.11 (Nov. 2014) pp. 1144–1146. 2014

organizational skills

- 2009–2010 **Organizer Creative Game Challenge** Utrecht University, Netherlands
Responsible for the promotion of the CGC, which included contacting high schools, organizing workshops, editing the website, sending newsletters.
- 2009–2010 **Member of the ISN Introduction Committee** University of Amsterdam, Netherlands
Organized the International Student Network introduction week for international students in Amsterdam.

communication skills

- 2007–2009 **Spokesperson Computer Science** University of Amsterdam
Held presentations and workshops for high school students to get them interested in Computer Science.
- 2007–2009 **Mentor** University of Amsterdam
Weekly meetings with first year Computer Science students where I helped to ease the pains of their first steps into the academic world.
- 2007 **Fundraiser** Streetwise, Amsterdam
Convinced people to make donations to the World Wide Fund and the Dutch Heart Foundation.

interests

professional: data analysis, system development, computer science, biology, music

personal: guitar, music composition, concerts, basketball, travelling