



Nicola Prezza

Via Roma 34/1
33050 Lestizza (UD)
Italy

+39 3471530301

nicola.prezza@gmail.com

<https://users.dimi.uniud.it/~nicola.prezza/>

<https://github.com/nicolaprezza>

SUMMARY

PhD student in Computer Science at the University of Udine. Skilled at designing and implementing algorithms and data structures, with over five years of experience in compressed text indexes, bioinformatics, C++ programming, and code optimization.

RESEARCH EXPERIENCE

PhD student, University of Udine

Udine, Italy — 2014-current position (expected dissertation date: beginning of 2017)

- Contributed to the publication of 8 articles in high-ranked international journals and conferences (including DCC, ISAAC, CPM, SPIRE) by proposing and implementing original algorithmic results and writing the papers
- As a team member, contributed substantially (30 C++ classes out of a total of 80) to an open-source DNA [short-reads aligner](#) by designing and implementing its core data structures and pattern matching algorithms
- Author of 13 [software repositories](#), including two C++ libraries ([bwtil](#), [dynamic](#)) implementing 4 original research results and over 13 highly-optimized compressed data structures
- Demonstrated the ability of conveying scientific knowledge by successfully speaking at over 15 international conferences / technical seminars and lecturing two advanced-algorithms short courses at Master's degree level

Visiting PhD student, New York University

New York, New York — June-July 2015 (2 months)

- As a team member, contributed to the design and implementation of a DNA [base caller](#) based on Hidden Markov Models and compressed data structures

Visiting PhD student, University of Helsinki

Helsinki, Finland — December 2014 (2 weeks)

- As a team member, contributed to the creation of a new compressed [self-index](#) based on LZ77 and run-length encoded BWT by designing some of its components and implementing it as a C++ library

EDUCATION

Master's degree in Computer Science, University of Udine — 2011-2013

- Final grade: 110/110 *cum laude*. GPA: 3.90
- Main areas of interest: algorithms and data structures, bioinformatics

Exchange student, University of Southern Denmark — 2012 (one semester)

- Successfully passed four exams. GPA: 3.83
- Algorithms for biological sequence analysis, combinatorial optimization

Bachelor's degree in Computer Science, University of Udine — 2008-2011

- Final grade: 110/110 *cum laude*. GPA: 3.73
- Main areas of interest: algorithms and data structures, bioinformatics

SKILLS

- C++, LaTeX, ability to quickly learn any coding language as needed
- Algorithm engineering, string processing, compressed text indexes
- Experience with Linux environments, Bash scripting
- Excellent communication skills, including verbal and written English