

Md. Shamsuzzoha Bayzid

CONTACT INFORMATION	Graduate Student Department of Computer Science University of Texas at Austin Texas USA	<i>Cell:</i> 512-925-3107 <i>E-mail:</i> shams.bayzid@gmail.com
OBJECTIVE	To obtain a Ph. D. in Computer Science and explore exciting research opportunities in the field of computational biology.	
RESEARCH INTERESTS	Computational Biology, Graph Theory, Algorithms	
EDUCATION	PhD Candidate University of Texas at Austin (expected graduation date: Spring 2016) CGPA: 4.00/4.00 M.Sc. Engg. in Computer Science and Engineering , July 2010 Bangladesh University of Engineering and Technology (BUET) CGPA: 4.00/4.00 B.Sc. Engg. in Computer Science and Engineering , January 2008 Bangladesh University of Engineering and Technology (BUET) CGPA: 3.96/4.00 Position: Ranked 1st in a class of 115 students Higher Secondary Certificate (HSC) , 2002 Dhaka College, Dhaka Marks: 94.6% Placed 5th position in the combined merit list, Dhaka Education Board, Bangladesh Secondary School Certificate (SSC) , 2000 I. E. T. Govt. High School, Narayanganj Marks: 92.5% Placed 19th position in the combined merit list, Dhaka Education Board, Bangladesh.	
RESEARCH EXPERIENCE	<i>November 2006 - January 2008</i> Worked with Prof. Dr. Md. Saidur Rahman on <ul style="list-style-type: none">• “Individual Haplotyping With Minimum Error Correction”• “Pairwise Compatibility Graphs” <i>April 2008 - March 2009</i> Worked with Prof. Dr. Md. Saidur Rahman on <ul style="list-style-type: none">• “Minimum Conflict Individual Haplotyping”• “Innovative Technology”	

April 2009 - July 2010

Worked with Prof. Dr. Md. Saidur Rahman on

- “Phylogentic k-root and Steiner k-root Graphs”
- “The open problem – whether every graph is pairwise compatible or not”

August 2010 - present

Working with Prof. Dr. Tandy Warnow on

- “Species tree estimation from gene trees”

COURSES TAKEN List of selected courses:
Algorithms (BUET)
Parallel Algorithms (UT Austin)
Theory of Computation (UT Austin)
Distributed Computing (UT Austin)
Algorithms for Computational Biology (UT Austin)
Data Structures (BUET)
Discrete Mathematics (BUET)
Graph Theory (BUET)
(Obtained A in all these courses)

TEACHING *February 2008 - July 2010*

EXPERIENCE Lecturer
Department of Computer Science and Engineering
Bangladesh University of Engineering and Technology

Fall 2014

Teaching Assistant (CS 311: Discrete Mathematics for Computer Science)
Department of Computer Science
University of Texas at Austin

Spring 2015

Teaching Assistant (EE 360C: Algorithms)
Department of Electrical and Computer Engineering
University of Texas at Austin

HONOURS &
AWARDS

- PSB 2013 (January 3-7, Hawaii) travel award from the National Library of Medicine/National Institutes of Health.
- Graduate Dean’s Prestigious Fellowship, UT Austin (2012-2013).
- Graduate Dean’s Prestigious Fellowship, UT Austin (2011-2012).
- Graduate Dean’s Prestigious Fellowship, UT Austin (2010-2011).
- Dean’s Excellence Award from the College of Natural Sciences, UT Austin (Fall 2010).
- International Fulbright Science and Technology Ph.D. Award, 2010.
- Dean’s List Award for academic excellence in all completed levels, BUET.
- University Merit Scholarship for academic excellence in all terms, BUET.
- Khatimunnesa and Md. Hanif Laskar Trust Fund Scholarship, BUET, 2007.
- Dhaka Education Board Scholarship for excellence in the HSC examination, 2002.
- Dhaka Education Board Scholarship for excellence in the SSC examination,

2000.

PUBLICATIONS

Journals

- Jarvis ED, Mirarab S, Aberer AJ, Li B, Houde P, Li C, Ho SY, Faircloth BC, Nabholz B, Howard JT, Suh A, Weber CC, da Fonseca RR, Li J, Zhang F, Li H, Zhou L, Narula N, Liu L, Ganapathy G, Boussau B, **Bayzid MS**, Zavidovych V, Subramanian S, Gabaldon T, Capella-Gutiérrez S, Huerta-Cepas J, Rekepalli B, Munch K, Schierup M, Lindow B, Warren WC, Ray D, Green RE, Bruford MW, Zhan X, Dixon A, Li S, Li N, Huang Y, Derryberry EP, Bertelsen MF, Sheldon FH, Brumfield RT, Mello CV, Lovell PV, Wirthlin M, Schneider MP, Prosdocimi F, Samaniego JA, Vargas Velazquez AM, Alfaro-Nez A, Campos PF, Petersen B, Sicheritz-Ponten T, Pas A, Bailey T, Scofield P, Bunce M, Lambert DM, Zhou Q, Perelman P, Driskell AC, Shapiro B, Xiong Z, Zeng Y, Liu S, Li Z, Liu B, Wu K, Xiao J, Yinqi X, Zheng Q, Zhang Y, Yang H, Wang J, Smeds L, Rheindt FE, Braun M, Fjeldsa J, Orlando L, Barker FK, Jönsson KA, Johnson W, Koepfli KP, O'Brien S, Haussler D, Ryder OA, Rahbek C, Willerslev E, Graves GR, Glenn TC, McCormack J, Burt D, Ellegren H, Alström P, Edwards SV, Stamatakis A, Mindell DP, Cracraft J, Braun EL, Warnow T, Jun W, Gilbert MT, Zhang G, *Whole-genome analyses resolve early branches in the tree of life of modern birds*, Science, 2014 Dec 12, 346(6215):1320-31. doi: 10.1126/science.1253451, 2014.
- Siavash Mirarab, **Md. Shamsuzzoha Bayzid**, Bastien Boussau, and Tandy Warnow, *Statistical binning enables an accurate coalescent-based estimation of the avian tree*, Science, 2014 Dec 12, 346(6215):1250463, doi: 10.1126/science.1250463, 2014.
- **Md. Shamsuzzoha Bayzid**, Tyler Hunt and Tandy Warnow, *Disk Covering Methods Improve Phylogenomic Analyses*, BMC Genomics, 15(Suppl 6):S7, doi:10.1186/1471-2164-15-S6-S7, 2014.
- Siavash Mirarab, Rezwana Reaz, **Md. Shamsuzzoha Bayzid**, Theo Zimmermann, Shel Swenson and Tandy Warnow, *ASTRAL: Genome-scale coalescent-based species tree estimation*, Bioinformatics, 30 (17): i541–i548., doi: 10.1093/bioinformatics/btu462, 2014.
- Rezwana Reaz, **Md. Shamsuzzoha Bayzid**, and M. Sohel Rahman, *Accurate Phylogenetic Tree Reconstruction from Quartets: A Heuristic Approach*, PLoS ONE, 9(8): e104008, doi:10.1371/journal.pone.0104008, 2014.
- Siavash Mirarab, **Md. Shamsuzzoha Bayzid**, Bastien Boussau, and Tandy Warnow, *Evaluating summary methods for multi-locus species tree estimation in the presence of incomplete lineage sorting*, Systematic Biology, doi: 10.1093/sysbio/syu063, 2014.
- **Md. Shamsuzzoha Bayzid** and Tandy Warnow, *Naive Binning Improves Phylogenomic Analyses*, Bioinformatics, doi: 10.1093/bioinformatics/btt394, 2013.

- **Md. Shamsuzzoha Bayzid** and Tandy Warnow, *Estimating Optimal Species Trees from Incomplete Gene Trees under Deep Coalescence*, Journal of Computational Biology, Vol. 19(6), pp. 591-605, 2012.
- Muhammad Nur Yanhaona, **Md. Shamsuzzoha Bayzid** and Md. Saidur Rahman, *Discovering Pairwise Compatibility Graphs*, Discrete Mathematics, Algorithms and Applications, Vol. 2(4), pp. 607-623, 2010.
- **Md. Shamsuzzoha Bayzid**, Md. Maksudul Alam, Abdullah Mueen and Md. Saidur Rahman, *HMEC: A Heuristic Algorithm for Individual Haplotyping with Minimum Error Correction*, ISRN Bioinformatics, Vol. 2013, Article ID 291741, doi:10.1155/2013/291741, 2013.

Conference Proceedings

- **Md. Shamsuzzoha Bayzid**, Tyler Hunt and Tandy Warnow, *Disk Covering Methods Improve Phylogenomic Analyses*, RECOMB-CG, 2014.
- Siavash Mirarab, Rezwana Reaz, **Md. Shamsuzzoha Bayzid**, Theo Zimmermann, Shel Swenson and Tandy Warnow, *ASTRAL: Genome-Scale Coalescent-Based Species Tree*, ECCB, 2014.
- **Md. Shamsuzzoha Bayzid**, Siavash Mirarab and Tandy Warnow, *Inferring Optimal Species Trees under Gene Duplication and Loss*, Proc. of Pacific Symposium on Biocomputing (PSB), 18:250-261, 2013.
- **Md. Shamsuzzoha Bayzid**, Md. Maksudul Alam and Md. Saidur Rahman, *A Heuristic Algorithm for Minimum Conflict Individual Haplotyping*, Proc. of International Conference on Biomedical Engineering and Informatics (BMEI), IEEE Computer Society Press, Vol. 5, pp. 2145–2149, 2010.
- Muhammad Nur Yanhaona, **Md. Shamsuzzoha Bayzid** and Md. Saidur Rahman, *Discovering Pairwise Compatibility Graphs*, Proc. of International Computing and Combinatorics Conference (COCOON), pp. 399-408, 2010.
- Muhammad Nur Yanhaona, **Md. Shamsuzzoha Bayzid** and Md. Saidur Rahman, *Not All Graphs are Pairwise Compatibility Graphs*, Proc. of 3rd Annual Meeting of the Asian Association for Algorithms and Computation, 2010.
- Abdullah Al Mueen, **Md. Shamsuzzoha Bayzid**, Md. Maksudul Alam and Md. Saidur Rahman, *A Heuristic Algorithm for Individual Haplotyping with Minimum Error Correction*, Proc. of International Conference on Biomedical Engineering and Informatics (BMEI), IEEE Computer Society Press, pp. 792-796, 2008.
- **Md. Shamsuzzoha Bayzid**, Anindya Iqbal, Chowdhury Sayeed Hyder and Mohammad Tanvir Irfan, *Application of Artificial Neural Network in Social Computing in the context of Third World Countries*, Proc. of International Conference on Electrical and Computer Engineering (ICECE), pp. 648-653, 2008.

OTHER
ACTIVITIES

Reviewer, International Conference on Biomedical Engineering and Informatics (BMEI 2008).

Reviewer, Discrete Mathematics, Algorithms and Applications.

Reviewer, IEEE/ACM Transactions on Computational Biology and Bioinformatics.

Adviser, Crimson Bangladesh (www.crimsonbangladesh.org)

Member, Champion team of the CSE Day'04 Cricket Tournament organized by the department of Computer Science and Engineering, BUET.

REFERENCES

Dr. Tandy Warnow

Professor

Department of Computer Science

University of Texas at Austin

Dr. Joydeep Ghosh

Professor

Department of Electrical and Computer Engineering

University of Texas at Austin