BORIS BOUTKOV

Personal Data

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OBJECTIVE

TO OBTAIN A FULL TIME POSITION IN A MODERN, FAST PACED, COMPUTATIONALLY DRIVEN ORGANIZATION.

WORK EXPERIENCE

SEP 2012 - MAY 2019 GRADUATE RESEARCHER AND TEACHING ASSISTANT AT U. BUFFALO

GRADUATE RESEARCHER: INVESTIGATED COMPOSABLE MULTIPHYSICS PROBLEMS THROUGH

GRINS AND ENABLED GEOMETRIC MULTIGRID IN LIBMESH

GRADUATE ASSISTANT: CALCULUS 1,2,3, LINEAR ALGEBRA, DIFFERENTIAL EQUATIONS, HIGH PER-

FORMANCE COMPUTING

DEC 2010 - JUN 2012 DEVELOPER/ANALYST AT AMKAISOLUTIONS IN ARMONK, NEW YORK

> DESIGNED AND DEVELOPED LARGE HEALTH SOFTWARE PROJECT INVOLVING JAVA, SQL, HQL AND XML INTEGRATION. EXPERIENCE WITH PROJECT MANAGEMENT, DATABASE ANALYSIS, AND ALGO-

RITHM OPTIMIZATION.

JAN 2009 - MAY 2010 MATHEMATICAL RESEARCHER AT R.P.I.

> EXPLORED NUMERICAL OPTIMIZATION STRATEGIES RELATING TO STOCHASTIC EPIDEMIOLOGY STUDIES OVER VARIOUS NETWORKS. STUDY OF DISEASE AND SOCIAL COST MINIMIZATION STRATE-GIES WITH VARIOUS PARAMETER INVESTIGATIONS, DATA EXPLORATION AND INTERPRETATION

THROUGH MATLAB.

EDUCATION

SEP 2014 - MAY 2019 Ph.D. IN COMPUTATIONAL AND DATA ENABLED SCIENCES

UNIVERSITY AT BUFFALO, BUFFALO, NY

GPA: 3.9/4.0 | ADVISOR: PAUL T. BAUMAN

THESIS | GEOMETRIC MULTIGRID FOR UNSTRUCTURED FINITE ELEMENTS: IMPLEMENTATION

AND APPLICATIONS

SEP 2012 - MAY 2014 MASTERS IN MATHEMATICS

GPA: 3.9/4.0 | UNIVERSITY AT BUFFALO, BUFFALO, NY

SEP 2006 - MAY 2010 B.S. DUAL DEGREE IN APPLIED MATHEMATICS AND PHYSICS

> RENSSELAER POLYTECHNIC INSTITUTE, TROY, NY GPA: 3.2/4.0 | ADVISOR: PETER R. KRAMER

THESIS: RISK PERCEPTION IN EPIDEMIC MODELING WITH HETEROGENEOUS CONNECTION STRENGTHS

MINORS: PHILOSOPHY, PSYCHOLOGY | DEANS LIST: FALL 2006 - SPRING 2009

Presentations, Publications, and Awards

JOURNAL OF COMPUTATIONAL SCIENCE: ENABLING COMPOSABLE LINEAR SOLVERS FOR UNSTRUC-**JULY 2019**

TURED FINITE ELEMENT METHODS USING LIBMESH AND PETSC

MAY 2019 PH.D. DISSERTATION: GEOMETRIC MULTIGRID FOR UNSTRUCTURED FINITE ELEMENTS: IMPLMENTA-

TION AND APPLICATIONS

APRIL 2019 **UB CDSE** BEST RESEARCH POSTER AWARD

MARCH 2017 SIAM CONFERENCE ON COMPUTATIONAL SCIENCE AND ENGINEERING, BOSTON, MA

PRESENTED: (TOWARDS A) VARIATIONAL IMMERSED BOUNDARY IMPLEMENTATION THROUGH GRINS AND

LIBMESH

DEC 2014.2015 U. BUFFALO COMPUTATIONAL DATA SCIENCE FELLOWSHIP

JUNE 2014 MATHEMATICAL PROBLEMS IN INDUSTRY, NEW JERSEY INSTITUTE OF TECHNOLOGY

> COLLABORATIVELY INVESTIGATED VARIOUS PROBLEMS POSED BY INDUSTRIAL REPRESENTATIVES WHILE PEER REVIEWING PARTNER GROUPS IN WEEK LONG EXPLORATORY PROJECT SPRINTS.

> REPORT PRESENTED: A SMOOTH RIDE ON A BUMPY ROAD, MODELING AND NUMERICAL INVESTIGATION

OF VEHICLES DRIVING ON BUMPY ROADS.

LANGUAGES AND COMPUTER SKILLS

RUSSIAN, C++, C, PYTHON, MPI, MATLAB/OCTAVE, SQL, LINUX, GIT, L'TFX WORKING KNOWLEDGE | SPANISH, MAPLE, MATHEMATICA, JAVA, HTML, CSS