BOAZ NASH

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SUMMARY

Detail-oriented research scientist with almost 20 years of experience in mathematical and computational physics with a focus on particle accelerators and synchrotron light sources. Self motivated and eager to continue learning and expanding my knowledge into climate science and foundations of physics. Passionate about sharing knowledge, mentoring students and participating in further research.

WORK EXPERIENCE

Research Scientist, Radiasoft LLC

- Managed and contributed on projects focusing on particle accelerators, x-ray optics and high power lasers.
- Developed reduced models, ran simulations, and contributed to scientific software development
- Wrote research papers and presented work at multiple conferences
- Project manager for project X-ray Beamline Control with an Online Model for Automated Tuning and Reconfiguration, a \$1.2 million grant for X-Ray Beamline Control with an online model for automated tuning and reconfiguration

Research Scientist, ESRF

- Non-linear dynamics and collective effects research in electron beam dynamics for the present ESRF
- Planned EBS upgrade project low emittance upgrade of the ESRF storage ring
- Project coordinator for project AT Collab Continued the development of Accelerator Toolbox, an open source beam dynamics software. Facilitated the creation of the Python version of AT, PyAT.

Postdoctoral Research Associate, ESRF

Beam dynamics research and software development for the ESRF storage ring

EDUCATION

Stanford University - PhD in Physics

Final Dissertation: "Analytical approach to Eigen-emittance evolution in electron storage rings". PhD Supervisor: Dr. Alexander Wu Chao

Reed College - Bachelors of Arts in Math and Physics

Mathematics / Physics Senior Thesis: "Getting From Here to There: Adiabatic Transport of Classical Periodic Systems"

TECHNICAL SKILLS

- Project management
- Grant writing
- Technical presentations
- Mentoring students
- Wikipedia article writing
- Speak French and Spanish
- Attention to detail
- Problem solving
- MacOS, WIndows, Linux
- Synchrotron Radiation and Insertion Devices: SRW, Shadow, Radia
- Particle accelerator tracking codes: Accelerator Toolbox, Excel optics, Tracy, Elegant, Mad-X/PTC, Opal
- · C, Python, Fortran Programming

RELATED EXPERIENCE

- Referee for Physical Review Accelerators and Beams
- Executive Committee Member of American Physical Society, Four Corners Section
- Started and contributed to nine accelerator physics Wikipedia articles
- Publication list available upon request

Boulder, Colorado 2017 - 2024

Grenoble, France 2012 - 2017

Grenoble, France

2009 - 2012

1999 - 2006

1994 - 1998