adrian **wan**

algorithms design engineer @ Nest

contact

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languages

trilingual English, Cantonese, Mandarin
fluent Japanese
beginner French, ASL

programming

♥ Python (`pandas`, `SciPy`)
MATLAB
♥ Git
Atlassian Stack (Stash, JIRA)

about

I develop **extensible and flexible analysis tools** to produce actionable, robust, **data-driven insights**.

education

2011–2015 **B.A.** Physics & Computer Science — Swarthmore College, Swarthmore PA
Cumu. GPA: 3.9 · *Phi Beta Kappa*

Physics: Statistical Physics · Quantum Theory · Analytical Dynamics · Electrodynamics · Thermodynamics & Stat. Mechanics
CS: Intro. Programming Languages · Algorithms · Cloud Systems & Data Networks · Databases · Operating Systems · A.I. · Bioinformatics

experience

2015– **Nest** — **Algorithm Design Engineer**

· **Re-engineered** a MATLAB script-based, labor-intensive process for device sensor modeling into a streamlined, **extensible Python library**:
  – Abstracted **mathematical models** for rapid prototyping and exploration;
  – Used across existing and future hardware to unlock product features;
  – **Planned and executed** as a one-month project;
  – Used to address customer-facing issues.

2014 **Nest** — Algorithm Design & Data Science Intern

· Spearheaded Python prototyping of **data-driven user product**:
  – Developed, implemented, and evaluated models of on-device sensor data using `Pandas`;
  – Employed **test-driven development** to publish an extensible modeling package, used within team to prototype related features;
  – **Balanced** development with research-style exploration of results and data.

2013–2014 **Swarthmore Spheromak Experiment (SSX)** — Research Assistant

· Received the **Vandervelde-Cheung Scholarship** for summer research.
· Developed Python (`SciPy`) scripts to analyze plasma wind-tunnel data.
· Received the **Outstanding Undergraduate Poster Award** for poster presentation at the APS Division of Plasma Physics 2013 Meeting.
· Coauthored papers published in *Physical Review Letters* and in *Plasma Physics and Controlled Fusion*.

for more

Publications and more experiences are on my personal website and on LinkedIn.