



Payne Vogtman

Date of birth: 22/03/2001 | **Nationality:** American | **Phone number:** (+1) 3129103420 (Mobile) |

Email address: iam@payne.is | **Website:** <https://payne.is> | **Address:** Portugal (Home)

● EDUCATION AND TRAINING

01/08/2019 – 01/05/2023 Bloomington, United States

BACHELOR OF SCIENCE IN PHYSICS College of Arts & Sciences, Indiana University

Newtonian mechanics, oscillations and wave phenomena, bulk material properties, and thermodynamics; upper-level rigor in analytical mechanics (Lagrangian/Hamiltonian formalisms), electromagnetism (Maxwell's equations, radiation theory), statistical mechanics, and quantum mechanics; complemented by extensive laboratory work with precision instrumentation and high-performance computing; applied via variational calculus, finite-element/finite-difference simulations, Monte Carlo sampling, perturbation theory, and spectroscopic data analysis to model and predict physical systems.

Level in EQF EQF level 6

01/08/2019 – 01/05/2023 Bloomington, United States

BACHELOR OF SCIENCE IN ASTRONOMY AND ASTROPHYSICS College of Arts & Sciences, Indiana University

Integrated expertise in celestial mechanics, photometric/spectroscopic observation, and radiative-transfer analysis; advanced competence in modern observational techniques (telescope optics, CCD/IR calibration, multi-band imaging), computational astrophysics (N-body/hydrodynamic simulations, Bayesian inference, ML classification), and extragalactic/cosmological theory (Λ CDM dynamics, galaxy evolution, high-z spectroscopy); reinforced by hands-on lab work with spectrographs and interferometers; applied via Fourier light-curve analysis, MCMC parameter estimation, and multi-wavelength SED fitting to investigate stars, galaxies, and the large-scale universe.

Level in EQF EQF level 6

01/08/2019 – 01/05/2023

BACHELOR OF SCIENCE IN BUSINESS Kelley School of Business, Indiana University

Advanced finance expertise covering corporate valuation, capital-budgeting, capital-structure optimization, portfolio construction with risk-adjusted metrics, credit-risk modeling, and FX/treasury management, complemented by GAAP-based accounting fundamentals; applied via econometric regressions, Monte Carlo simulation, stochastic discount-factor modeling, and real-options analysis for data-driven capital allocation and compliance.

Level in EQF EQF level 6

01/08/2019 – 01/05/2023 Bloomington, United States

MINOR IN MATHEMATICS College of Arts & Sciences, Indiana University

Integrated expertise in single- and multivariable calculus (limits, differentiation, integration, series, vector calculus, Green's/Stokes'/divergence theorems) and differential equations (ODE/PDE, Laplace transforms, Fourier series, eigenfunction expansions); complemented by linear algebra, numerical analysis, and stochastic modeling; applied through analytical derivations, finite-element/finite-difference discretizations, Monte Carlo simulation, optimization algorithms, and symbolic-computation tools to tackle complex quantitative problems across science and engineering

Level in EQF EQF level 4

● WORK EXPERIENCE

LABORATORY TECHNICIAN – LOS ALAMOS NEUTRON SCIENCE CENTER – 01/11/2021 – 30/11/2021 – LOS ALAMOS, UNITED STATES

Design, Fabrication, Installation, and Experimentation with Gravitational Crank Spectrometers to Produce an Accurate Spectrum of the Ultra-Cold Neutron Beam

Contracted Tax Preparation position I work whenever I am in the United States

[My own consultancy for miscellaneous services.](#) I've developed and implemented software and business plans and built websites.

SKILLS

quantitative analysis | mathematical modelling | quantum mechanics | computational physics | electromagnetism | spectroscopy | computer simulation | statistical modeling techniques

LANGUAGE SKILLS

Mother tongue(s): ENGLISH

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
FRENCH	B1	B2	A2	A2	A2
GERMAN	A2	A2	A1	A1	A1

VOLUNTEERING

01/10/2023 – CURRENT
Various Work Exchanges

- Oct - Dec 2023: Farm Labor, Animal Care & Childcare at Scandinavian Cello School in Stevns, Denmark
- Dec - Dec 2023: Refugee Assistance at Hotel Mittagsgogel in Carinthia, Austria
- Apr - May 2024: Home Construction & Lobster Fishing on les îles-de-la-Madeleine, Canada
- Nov - Dec 2024: Mucking and Farm Construction at a Horse Rescue Farm in Bunclody, Ireland
- Feb - Mar 2025: Animal Care & Cooking for Family in Nesodden, Oslo, Norway

01/01/2020 – CURRENT
Habitat Sartorial, an Indiana 501c3 Charity

[A nonprofit founded by myself and three close friends.](#) We've run three concerts and sold merchandise to raise \$19,700 for charities in our hometown of Indianapolis, and built a global network of charity projects we contribute to.

HOBBIES AND INTERESTS

What I'm up to when not Working

- Reading, especially Russian Fiction and Greek Philosophy
- Kickboxing
- Swift iOS development with Vapor backend
- taking courses online on Peterson Academy

Link <https://payne.is>